



REPORT  
OF  
THE GOVERNORS  
OF THE  
UNIVERSITY OF ALBERTA  
1947-48

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*To the Lieutenant Governor in Council*

SIR:

On behalf of the Governors of the University of Alberta, and in accordance with Section 28 of an Act respecting the University of Alberta, the undersigned have the honour to transmit through the Minister of Education the Report of the University of Alberta, setting forth the revenues and expenditures for the year ending March 31st, 1948, and the investments as they stood at the end of the fiscal year.

Appended to this report is the Report of the President of the University, in which the academic work of the University for the year, July 1st, 1947, to June 30th, 1948, is dealt with in detail.

H. H. PARLEE, *Chairman*

ROBERT NEWTON, *President*

November 30, 1948





# Financial Statements

## STATEMENT A

### UNIVERSITY OF ALBERTA

#### BALANCE SHEET AS AT MARCH 31, 1948

#### ASSETS

##### FIXED:

##### Buildings and equipment in service:

Land, buildings and plant, Schedule No. 1 .....	\$5,489,450.91	
Furnishings and equipment, Schedule No. 2 .....	<u>1,454,124.88</u>	\$6,943,575.79

##### CURRENT:

Cash on hand and in bank ..... \$ 110,019.38

##### Accounts receivable:

Sundry debtors .....	\$ 69,714.28
Less: Reserve for doubtful accounts .....	<u>2,500.00</u>

\$ 67,214.28

Government of the Province of Alberta re medical and library buildings .....

167,277.60

234,491.88

Accrued interest .....

4,241.67

Merchandise held for resale, Schedule No. 4 .....

82,993.56

Dominion of Canada bonds .....

10,000.00

441,746.49

##### PREPAID EXPENSES:

Supplies on hand, Schedule No. 4 ..... \$ 44,335.61

Unexpired insurance ..... 14,718.82

Legal retainer fee ..... 375.00

Unemployment insurance stamps ..... 179.02

59,608.45

##### OTHER ASSETS:

Livestock inventory ..... \$ 24,140.50

Deposit, Workmen's Compensation Board ..... 8,564.00

32,704.50

##### TRUST:

##### Investments, Schedule No. 5:

	Par Value	Book Value
Dominion of Canada bonds .....	\$ 420,200.00	\$ 426,868.69
Province of Alberta debentures .....	685,600.00	685,870.32
Province of Alberta special adjustment coupons .....	43,163.91	40,820.96
Preferred shares .....	<u>500.00</u>	<u>500.00</u>

\$1,149,463.91

\$1,154,059.97

Cash on hand and in bank ..... 195,815.49

Due from general account ..... 77,469.93

Debenture interest receivable, deferred ..... 74,375.25

Loans receivable ..... 27,275.37

Mortgages receivable ..... 6,873.87

Real estate and shares, nominal value ..... 11.00

1,535,880.88

\$9,013,516.11

# LIABILITIES

## CAPITAL AND SURPLUS:

Advanced by the Government of the Province of Alberta .....	\$6,017,802.43
Capital surplus .....	997,978.51

\$7,015,780.94

## CURRENT:

Imperial Bank of Canada loan .....	\$ 12,000.00
Cafeteria tickets outstanding .....	1,452.44
Accounts payable .....	234,466.56
Due to trust account .....	77,469.93

325,388.93

## DEFERRED INCOME:

Fees .....	\$ 8,897.50
Other .....	1,500.00

10,397.50

## RESERVES:

Unexpended library fees and donations .....	\$ 32,086.34
Premium on Rockefeller endowment .....	18,221.66
Workmen's Compensation Board .....	12,064.93
Blood plasma unit .....	10,000.00
Rink repairs .....	9,867.06
Repairs and replacements .....	8,876.11
Preliminary building expenses, architect .....	3,085.58
Unexpended University Athletic Board fees .....	2,082.78
Operating .....	29,783.40

126,067.86

## TRUST:

General endowment Rockefeller Foundation .....	\$ 500,000.00
Scholarships:	
Escheated estates .....	\$273,711.67
General .....	179,538.07

Research .....	453,249.74
Pensions .....	264,582.30
Student grants and loans .....	46,961.29
General educational purposes .....	35,416.18
Sundry .....	24,947.92
Amounts administered or held for affiliated organizations and others .....	57,500.36
	153,223.09

1,535,880.88

\$9,013,516.11



Edmonton, Alberta, August 5, 1948.

I have audited the books and records of the University of Alberta for the year ended March 31, 1948.

Operations for the year under review resulted in a net deficit of \$1,937.94 after providing from current revenues for new buildings and equipment at a cost of \$337,873.47. Details of operations are shown on Statement B, and accompanying schedules.

The normal schools at Calgary and Edmonton and summer school formerly under the jurisdiction of the Department of Education of the Province were, as previously reported, transferred to the University as from April 1, 1945. All expenditures in connection therewith are shown in the attached statements except for maintenance and upkeep of buildings which has been provided by the Province direct.

### Financial Position

Buildings, plant, furnishings and equipment are stated on the Balance Sheet at original cost. No provision has been made for depreciation but University officials are of the opinion that the value of furnishings and equipment has been maintained by additions and renewals from revenue and reserve accounts.

Inventories of merchandise for re-sale and supplies on hand are certified as to quantities and prices by officials of the University.

Past due principal on mortgages receivable amounted to \$2,214.00 as at the date of the Balance Sheet.

Capital and surplus transactions during the year are summarized hereunder:

Capital advanced by the Government of the

Province of Alberta:

Balance as at April 1, 1947 .....	\$5,366,747.89	
Add:		
Medical building additions .....	424,457.60	
Library construction .....	113,316.00	
Advance for equipment .....	76,000.00	
Paving .....	33,360.40	
Implementation of guarantee .....	3,000.00	
Threshing machine shed .....	920.54	
		\$6,017,802.43

Capital surplus:

Balance as at April 1, 1947 .....	\$ 585,947.26	
Add:		
Expenditure on staff suites .....	54,308.42	
Income contributions:		
Library .....	19,849.36	
Buildings and equipment .....	337,873.47	
		997,978.51
		<u>\$7,015,780.94</u>

Subject to the foregoing remarks, I certify that, in my opinion, the above Balance Sheet is properly drawn up so as to show the financial position of the University of Alberta as at March 31, 1948, according to information and explanations given to me and as shown by the books of the University, and the accompanying Statement of Revenue and Expenditure correctly sets forth the result of operations for the year ended at that date.

C. K. HUCKVALE, C.A.

Provincial Auditor

STATEMENT B

UNIVERSITY OF ALBERTA  
STATEMENT OF REVENUE AND EXPENDITURE  
FOR THE YEAR ENDED MARCH 31, 1948

REVENUE

Grants:		
Province of Alberta:		
General .....	\$ 972,339.99	
Supplementary .....	5,000.00	
Debt charges, see contra .....	198,768.01	
	<hr/>	
	\$1,176,108.00	
Dominion of Canada:		
Department of Veterans' Affairs, supplementary grant re rehabilitation students .....	334,589.43	
	<hr/>	\$1,510,697.43
Fees:		
Tuition, Schedule No. 7 .....	\$ 661,249.29	
Examination and special, net, Schedule No. 8 .....	3,411.65	
	<hr/>	664,660.94
Interest on Rockefeller Foundation endowment .....	\$ 17,500.00	
Deduct: Transferred to medical research trust .....	5,000.00	
	<hr/>	12,500.00
Library fees, see contra .....		23,891.17
University Athletic Board fees, see contra .....		21,794.48
Operating departments net revenue, Schedule No. 9 .....		6,268.11
		<hr/>
		\$2,239,812.13

EXPENDITURE

Instructional expense:		
Instructional salaries and direct expenses, net, Schedule No. 10 .....	\$1,170,136.33	
Maintenance of buildings, Schedule No. 11 .....	169,198.58	
Administrative salaries and expenses, Schedule No. 12 .....	76,167.45	
Library salaries and expenses, Schedule No. 13 .....	44,286.45	
Upkeep of grounds, Schedule No. 14 .....	29,188.13	
Provision for library accessions, see contra .....	23,891.17	
Provision for University Athletic Board expenses, see contra .....	21,794.48	
Pensions arrears, Schedule No. 15 .....	7,014.01	
Calendars and scientific publications, Schedule No. 16 .....	6,656.39	
Alumni office, Schedule No. 17 .....	4,785.73	
Provost's office, Schedule No. 18 .....	4,649.77	
Veteran counselling, Schedule No. 19 .....	4,487.06	
Sundry, Schedule No. 20 .....	4,029.89	
	<hr/>	\$1,566,285.44
Public service departments net expenditure, Schedule No. 21 .....		138,823.15
Debt charges, see contra .....		198,768.01
		<hr/>
		\$1,903,876.60
Surplus for the year ended March 31, 1948, before providing for expenditure on new buildings and equipment .....		
Buildings and equipment purchased from income, Schedule No. 6 .....	\$ 335,935.53	
	<hr/>	337,873.47
Net deficit for the year ended March 31, 1948, transferred to operating reserve .....		
	<hr/>	\$ 1,937.94



UNIVERSITY OF ALBERTA  
STATEMENT OF OPERATING RESERVE  
FOR THE YEAR ENDED MARCH 31, 1948

STATEMENT C

Balance as at April 1, 1947 .....		\$	28,348.92
Add:			
Adjustments of previous years' transactions, net...	\$	320.29	
Faculty houses reserve, unexpended balance .....	\$	3,052.13	
			<u>3,372.42</u>
		\$	31,721.34
Deduct:			
Net deficit for the year ended March 31, 1948.....			1,937.94
Balance as at March 31, 1948 .....		\$	<u>29,783.40</u>

*To the Governors of the  
University of Alberta*

GENTLEMEN:

I have the honour to submit the following report on the work of the University of Alberta for the year ending June 30th, 1948.

ROBERT NEWTON  
*President*

# *The Report of the President*

*As presented to Convocation, October 18, 1947*

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As foreshadowed in my annual report last spring, we have entered upon the session of 1947-48 with the largest registration in the history of the University of Alberta. This university, in common with some others in this country, has this year not far from three times as many students as before the war. The post-war rush of student veterans is now subsiding, and we may perhaps settle down to a total registration about twice the pre-war size, before we resume normal and more gradual growth.

Doubling the student numbers requires of course the doubling of building accommodation and staff numbers. I am glad to acknowledge the generous support of our Provincial Government and Legislature in providing the wherewithal. The new West Wing of the Medical Building is now being occupied by the Departments of Chemistry, Biochemistry, and Chemical Engineering. The East Wing is closed in, and a year hence should bring relief to other crowded departments. The Library building, sorely needed by every department in the University, has been started, and should be available for use by the fall of 1949. Other projects we hope may follow in due course. Meanwhile all buildings, both of the academic campus and the hospital campus, are being made more accessible by a paving programme, which also mitigates the dust nuisance that had been a hazard both to health and to the accuracy of laboratory experiments.

I should call your attention to the rebuilt and enlarged University Memorial Organ, which in its new form is being used for the first time this afternoon. This truly inspired gift of alumni and friends in 1923-24 has benefitted every class passing through the University since, and at the same time has reminded us constantly of the debt we owe to those who gave their lives to protect our freedom. After 23 years of service, the organ required to be taken apart for cleaning, and we took the opportunity to add certain features which experience had shown were needed to make it a really great instrument, fully worthy of the high purpose to which it is dedicated.

This fall convocation differs from most of those held at various times other than in May during the past several years. Those were in the main to confer degrees on graduates of accelerated courses in Medicine and Dentistry. This one inaugurates what we expect to be a series of regular fall convocations with two main purposes: (1) to take care of the increasing number of graduates, especially in Education, who complete their work at the summer session; (2) to give some recognition to the winners of undergraduate awards, very few of whom ever have opportunity to attend the spring convocation. We cannot fulfil these purposes completely. Summer session graduates are already scattered far and wide, most of them teaching in Alberta schools. We set this convocation for a Saturday, in the hope that some at least of them might be able to get in. With regard to the undergraduate awards, they are too numerous to make it practicable to call all winners to the platform, and we must therefore recognize some of them in a group.



My report on the work of the year we are entering will of course be deferred to the spring convocation, and I shall take this opportunity to make some observations on education in the atomic era.

### *Education in the Atomic Era*

The harnessing of atomic energy, whether for baneful or beneficent purposes, has so radically changed the political, social, and economic prospects of the world as to mark the beginning of a new era. It will take some time fully to adjust our thinking and acting to the new situation. Educators should give leadership in the reorientation of thought, and should take cognizance of changed needs in the development of educational programmes.

Let us look at three of the most obvious problems to be met.

First, we must recognize that the only really effective defence against the atomic bomb is peace. Every generation may fairly be expected to make some unique contribution to civilization. It is clear that our contribution must be the spirit and technique of peace, if indeed our present civilization is not to perish.

The atomic bomb merely crystallized or pointed up a situation that already demanded peace. The industrial age (of which the atomic era is the culminating phase) requires world order to which to function. Not only has its technology, when directed to warlike ends, played havoc on a scale previously undreamed of, but if we are to profit, rather than suffer, by its characteristic local specialization and production for world markets, we must have the conditions which promote world trade. It was in late eighteenth century Great Britain, the largest free trade area in the world of that day, that the industrial revolution began. The United States eventually surpassed Great Britain in industrial development because it had within its own borders a larger, completely free trade area, rich in varied resources. Canada has the area and the resources, but not the population to sustain anything like its present scale of production without access to world markets. In 1867-68, the first year of Canada's nationhood, her combined exports and imports amounted to \$120,000,000 or \$34 for every person in the country. In 1946, the corresponding figures were \$4,240,000,000 for trade and \$354 per capita. Only the United States and the United Kingdom exceed Canada in trading volume. With one-half of one per cent of the world's population, Canada accounts for seven per cent of world trade.

Toynbee points out that when the old isolation of the Greek city-states gave place to interdependence on the economic plane, it thenceforth became impossible that they should remain, without disaster, in their pristine state of isolation on the plane of politics. We know the rest of their history and have no reason to doubt the same fate will befall us if we do not solve the problem of world political relations. Canada has a greater stake than any other country in finding the road to peace.

Our second great problem is the economic cycle. So long as world population was mainly rural, it was possible to meet depressions without such widespread suffering, even starvation. With the rise of industrialism there appeared the ogre of mass unemployment and the demoralizing dole. Urbanization, the concomitant of industrialism, has made depressions more dangerous, more costly, more difficult to rise from. A highly industrialized society for its own protection should see that economic hills and hollows are at least partially levelled. In practice it has done just the opposite.

Formerly when a depression came we tightened our belts and reduced consumption to the point where prices and employment started upward again. Now various factors conspire to increase the amplitude of our economic ups and downs. For example, organized labour naturally uses its power to force wages up with prices, thus helping to produce the familiar inflation spiral. Instead of moderating natural cyclical movements, we have in fact pushed them to the unnatural heights and depths of "boom and bust". Greater social self-control and more public-spirited co-operation are needed here.

One third major problem has to do with labour relations. Certainly labour is entitled to a living wage and proper working conditions. But less than five per cent of the world's population is engaged in factory and industrial labour, and in some countries this fraction has established a dictatorship over the whole. In many countries labour has acted apparently without full consideration of the effects of its actions on the welfare of other groups, the prosperity of which is essential to the welfare of labour itself. For example, we have now in this country a few thousand packing-house workers imperilling the livelihood of three-quarters of a million farm families, the success of whose business is vital to the maintenance of the packing industry. When on top of this they have cut off supplies to their hungry brethren in Britain, and in six provinces are flouting the law, we must recognize a very unhealthy condition, bordering indeed on anarchy. We have no reason to doubt that labour is sound at heart, but we must suspect that in some instances it has been badly led.

Not long ago I heard a member of the United Kingdom Coal Board say that mechanization of British mines had been proceeding steadily for twenty years, and that, contrary to theory and expectation, the output per man had gone steadily downward. He added, "There is no substitute for an honest day's work". We must add, there is no way to maintain prosperity and a high standard of living except by maintaining production. We need a new spirit of co-operation between management and labour, based not only on a recognition of the stark fact that "they must hang together or they will hang separately" but also on the much higher ground of the brotherhood of men in all walks of life.

Unfortunately we are handicapped, in fact almost hamstrung, in our efforts to solve all three of these major problems, by the clash of opposing ideologies. We are forced to adjust ourselves to living in two worlds though the machine age has made us physically one world.

Lenin said: "It is inconceivable that the Soviet Republic should continue to exist for a long period side by side with imperialist states. Ultimately one or the other must conquer." Obviously, if we desire peace we must prove Lenin's prophecy false, and learn to live side by side.

But we can't mix. The Soviet states clearly will not tolerate within their borders any opposition, official or unofficial, to Communism. And the nature of their political doctrine is such that their followers are not interested in becoming just another party in the political system of any of the western democracies. Wherever they gain a foothold they must work unceasingly for the complete destruction of all other parties.

Lenin also said: "We must . . . agree to any sacrifice, and even, if need be, resort to all sorts of stratagems, artifices, illegal methods, evasions and subterfuges,

only so as to get into the trade unions, to remain in them and to carry on Communist work in them at all costs". That explains at least in part the increasing difficulty of labour relations. We can hardly avoid the conclusion that Communists have insinuated themselves into the counsels of labour, not for the purpose of promoting the welfare of the workers, but to gain power and opportunity to stir up trouble and hasten the break-down of our system of government. Wherever dictatorships, whether of the right or the left, have gained control of the government of a country, one of their first steps has been to dissolve labour unions.

In seeking, as we must, a *modus vivendi* between east and west, I believe firmness is the only policy that will gain respect and have a chance of succeeding. Appeasement is thoroughly discredited. We should, on the one hand, try to convince the countries in the Soviet orbit of our desire to respect both their government and their territory, and to enter into friendly trade relations. On the other hand, we should insist that they refrain from interference with our mode of life. Those persons, whether citizens or visitors, whether fascist or communist, who abuse the freedom of these western countries by working here to tear down our constitutions and substitute therefor a dictatorship maintained by police force, should be firmly dealt with.

What should be our guiding light in shaping educational programmes for a people faced with these grievous problems? There is no salvation in materialism. Even the god of Technology has failed to save us. We have worshipped too long at the shrine of technique, including the technique of government. A. N. Whitehead, who knew whereof he spoke, said: "I will disclose one private conviction . . . that, as a training in political imagination, the Harvard School of Politics and Government cannot hold a candle to the old-fashioned English classical education of half a century ago." That gives us a clue. We cannot expect any system based on unproven theory, be its bible *Das Kapital* or *Mein Kampf*, to compare with one based on practical experience and the King James Bible. Our institutions have grown out of three hundred years of struggle for government by consent of the governed, for respect of property and human rights, for equal justice to all. Let us hold fast to that which is good in the past, adding constantly in the continuing light of experience, always protecting the dignity and worth of individual men made in the image and likeness of God.

The primary purpose of education should continue to be the inculcation of the best in English culture, that complex of ideas, customs, and beliefs, that heritage of art, music, literature, and, above all, law and religion, that makes up our glorious tradition. If this first purpose be perfectly fulfilled, the second will follow of its own accord, namely, the development of sound Christian character.

The atomic era, then, does not so much require a change of educational objectives as their intensification. In the summer of 1643, so disastrous for his cause, Cromwell wrote, "There is nothing to be feared but our own sin and sloth." So it is today. We must gird ourselves to battle more valiantly for righteousness. Then shall we see the truth of the Psalmist's words, "Righteousness and peace have kissed each other."



## Report of the President

*As presented to Convocation, May 18 and 19, 1948*

We are completing today the session with the largest registration in our history. In the regular winter session there were registered 4,941 students. In the summer session of 1947 there were 1,297 students at Edmonton, 49 at Calgary, and 610 at Banff. Add 16 diploma students in two courses of four and five months respectively, and we get a grand total of 6,913, as compared with 6,367 in the previous year and 2,327 in 1939-40.

Some 900 degree and diploma students are graduating today and tomorrow, though I regret that for lack of space the diploma students are not here in person. Since, in addition to those who graduate, others always fall by the way for various reasons, and since we expect a freshman class of only about 1,000 next fall, it is clear that we shall experience some recession for a few years. Then we shall start upwards again, because university populations everywhere are growing not only with the size of the state but also with the popularity of higher education.

Owing to lack of space and facilities, it is still necessary to maintain admission quotas in Medicine, Dentistry, and Pharmacy. Fortunately we have been better off in this respect than most Canadian schools. For example, one medical school has had during this session 158 students in second year pre-medicine, of whom only 45 can be carried into first year medicine. By comparison, we hope to carry forward practically all who qualify. Moreover, our situation should improve rapidly from now on. Qualified student veterans are practically all in, and we should gradually overtake the backlog of civilian students.

The increase in student numbers, coupled with rising costs per student, have led in many universities to large operating deficits. In the University of Alberta, thanks to a generous Provincial Government and to the careful stewardship of the Board of Governors, we have been able consistently to balance our budget. Here is the progression of Provincial grants during the past seven years, expressed in thousands of dollars: 450, 500, 551, 602, 746, 829, 972. The second main source of revenue is student fees, which ran as follows, again expressed in thousands of dollars: 254, 237, 239, 221, 414, 688, 726. Substantial grants have also been received in each of the last three years (the post-war years) from the Department of Veterans Affairs. These totalled roughly \$152,000, \$314,000 and \$335,000. These DVA grants will be maintained for three years more, but will diminish rapidly during that period, as student veterans individually exhaust their entitlement to government aid, and collectively become a smaller and smaller proportion of the whole student body.

To complete this part of the financial picture, I should add that service and operating departments, including particularly the residence halls, had collectively an annual turnover increasing from \$371,000 in 1941-42 to \$1,034,000 this year. Adding other small items we get a total budget on current account growing from \$1,089,000 seven years ago to \$3,080,000 this year. The University is getting to be big business!

The other part of the financial picture has to do with capital expenditures for buildings and equipment. From the point of view of a Provincial Government with the highly creditable record of financing all its capital investments from current income, these really form part of the annual grant to the University. They

grew during the seven-year period from \$11,000, when no building was in progress, to \$741,000 this year when we were well started on an extensive programme of construction.

With the prospect of a smaller DVA grant next year, a smaller fee revenue because of decline in number of students, a higher cost per student, not only on account of generally rising costs but also because the bulk of the students will be next year in the more expensive senior classes, we were obliged to ask the Government for a further substantial increase in our grant. It seemed unreasonable, however, to expect the Government to make up the whole of the prospective deficits I have just listed. The Board of Governors therefore decided reluctantly to follow the general trend of all Canadian universities and raise instructional fees.

Effective next September, fees in all faculties and schools will be raised by an average of a little less than 15 per cent. The amount of increase in different schools and faculties has been varied, taking into account the cost of instruction per student and to some extent also the professional attractiveness of these faculties and the public need for their graduates.

That these higher fees, coupled with higher living costs, will be hard on the students cannot be gainsaid, notwithstanding the comparative ease of obtaining moderately well-paid summer employment in recent years. The risk of losing to the service of the state promising students who cannot find the money for a university education must be squarely faced.

The Provincial Government has taken the progressive step of providing again next year \$40,000 for 200 scholarships of \$200 each in the Faculty of Education, as well as undertaking again to pay the fees of students in that Faculty taking the one-year course leading to elementary and intermediate certification. This step recognizes the imperative need for school teachers, and seeks to compensate for the lack of financial attractiveness of the profession by subsidizing the training costs.

There may be different reasons for considering such a subsidy in other faculties. Medicine, for example, is regarded as financially attractive, but costs so much to enter that some students have started calling it a rich man's course. The medical session now extended to nine months per year leaves a very short period in which a student can recoup his finances. Yet we cannot afford to entrust the health of the nation to persons selected on the basis of wealth. One western university has a very good system of medical scholarships provided by the government, really loans which can be discharged by service at country points after graduation. Each year of such service cancels one year's indebtedness incurred during the course of training. In this way the government insures not only that good students short of funds can become doctors, but also that country points needing medical service can be supplied.

Expensive as a large modern university is to maintain, I call your attention to the more than compensating credits on the other side of the ledger: the educated youth, such as you see before you today, eager to take their part in building straight and strong the fabric of the nation; the new knowledge emanating from our research laboratories, ready to applied to practical problems in the wise use of our resources; the numerous contacts with the people at large, elevating and purifying the life of the Province. Our Department of Extension reports a total attendance during the year at lectures, short courses, conferences, educational film showings, etc., aggregating 786,500 persons; a total circulation of travelling libraries, books, plays, study

group materials, etc., amounting to 62,500; a total circulation of our own periodicals and other publications, including *The New Trail*, *Stage Door*, and agricultural bulletins, reaching some 44,000.

I am pleased to report that the University is growing not only in size, but in quality and maturity, and that it is winning even wider recognition. Here is a random series of incidents during the year, which illustrate this point. A novel by Miss Christine van der Mark, of the Department of English, presented to our School of Graduate Studies as a thesis for the M.A. degree, won the Oxford-Crowell prize of \$500 and publication in both Canada and the United States. A Chinese student, attracted by the published papers of Dr. Max Wyman, came here from Wuchang, China, to study advanced mathematics. Mr. E. L. Whitney, an honors student in the Department of Mathematics, ranked among the first five in the international Putman Prize competition. Mr. Russell S. McArthur, a post-graduate student in Education, in Dominion-wide competition won a Carnegie Fellowship valued at over \$2,000 for study in London. Out of fifteen post-graduate students in Agriculture, eight were graduates of other institutions, attracted here by the research work of that faculty. Dr. Douglas Smith, of the Department of Philosophy and Psychology, was appointed a director of the Canadian Psychological Association and a member of the Psychological Research Panel of the Defence Research Board. The Department of Plant Science received from outside the University research grants totalling \$21,000.

To illustrate my earlier remark on the growing stream of new knowledge emanating from the University, I shall mention that we had 207 post-graduate students, nearly all pursuing original investigations under the direction of staff members. The staff itself published during the year 88 scholarly or scientific papers, ranging in subject from the influence of Milton on Keats' poetry to such practical problems as the training of chartered accountants and the nutrition of swine. Other work in progress included such diverse subjects as the psychological problem of living happily through an Arctic winter, the preparation of a botanical manual of the plants of Alberta, the private life of an atomic nucleus, and the *raison d'être* of our system of taxation.

The Faculty of Agriculture, always noted for its investigational and advisory service to the farmers of the Province, has during the year been supplied with improved facilities for the study of problems in animal nutrition, and with an up-to-date experimental poultry plant.

New instructional courses in preparation for next year include irrigation engineering, engineering geology, coal mining, and petroleum engineering. I mention these to reassure you that the University is mindful of its duty to keep abreast of the times in preparing graduates with the skill and competence to lead in the development of our physical resources.

I should like to say a special word on the progress of our Faculty of Education since the University assumed responsibility for all teacher-training in the Province. There was a record total of 1,051 students in that Faculty this year. Still more significant is the fact that nearly two-thirds of this number were men. Salary improvements doubtless account for part of this remarkable influx of men into the profession of teaching, but the prestige of the university degree must also be accounted a factor. Sixty-four of these students were doing post-graduate work,



investigating a large variety of educational problems. The Calgary Branch was strengthened by the addition of instructors in the Arts and Science subjects of the second years of the B.Ed. courses.

Finally I should like to say a word of thanks to the staff and students of the University who have worked diligently and co-operatively to make the year a success, in spite of all the handicaps inherent in our overcrowded condition. Next year will also be difficult, but after that the progress of our building programme, coupled with some temporary diminution of student numbers, should bring about better working conditions.

\* \* \* \*

Appended are tabular data concerning academic staff numbers; academic staff appointments and promotions; leave of absence, retirements, and resignations; student registration; gifts; new scholarships, prizes and medals; staff publications; and excerpts from reports of the Deans, Directors, Librarian, Provost, Radio Secretary, and Commanding Officers of Armed Service training units.

**Table I.—Academic Staff Numbers**

*Administrative Officers*

President .....	1	
Assistant to the President .....	1	
Deans of Faculties .....	7	
Directors of Schools .....	3	
Director of the Summer Session .....	1	
Provost .....	1	
Adviser to Student Veterans .....	1	
Adviser to Women Students .....	1	
Librarian .....	1	
Superintendent of the University Hospital .....	1	
Registrar .....	1	
Assistant Registrar .....	1	
Alumni Secretary .....	1	
Bursar .....	1	
Wardens of Residence Halls .....	3	
		25

*Full-time Teaching Staff*

Professors .....	40	
Associate Professors .....	37	
Assistant Professors .....	56	
Lecturers .....	29	
Instructors .....	40	
		202
On leave of absence:		
Associate Professors .....	1	
Assistant Professors .....	2	
Lecturers .....	3	
Instructors .....	1	

*Part-time Teaching Staff*

Professors .....	11
Associate Professors .....	3
Clinical Professors .....	10
Assistant Professors .....	6
Assistant Clinical Professors .....	3
Lecturers .....	25

Instructors .....	74	
Demonstrators in the Faculty of Education .....	66	
Student demonstrators and assistants .....	229	
	<hr/>	427
On leave of absence:		
Assistant Professors .....	1	
Instructors .....	1	
<i>Department of Extension</i>		
Director .....	1	
Assistant Professor .....	1	
Librarian .....	1	
Assistant in Study Groups .....	1	
Lecturer .....	1	
	<hr/>	5
<i>Research Council of Alberta</i>		
Chief Research Engineer .....	1	
Associate Research Professor .....	1	
Research Chemist .....	1	
Geologist .....	1	
Chemist .....	1	
Industrial Engineer .....	1	
Soil Surveyor .....	1	
Assistants .....	5	
Co-operating members of the University Faculty .....	7	
	<hr/>	19
<i>Library</i>		
Librarian .....	1	
Reference Librarian .....	1	
Chief Cataloguer .....	1	
Order Librarian .....	1	
Junior Assistants .....	3	
	<hr/>	7
<i>Industrial Laboratories</i>		
Director, Provincial Analyst .....	1	
Assistant .....	1	
	<hr/>	2
<i>Provincial Laboratory of Public Health</i>		
Director, Provincial Bacteriologist .....	1	
Pathologist, Provincial Serologist .....	1	
Assistants .....	2	
	<hr/>	4
<i>Other Academic Staff</i>		
Dietitians .....	3	
Radio Secretary .....	1	
Purchasing Agent .....	1	
Chief Accountant .....	1	
	<hr/>	6
Total .....		697
Less duplicates .....		29
		<hr/>
Total Academic Staff .....		668
		<hr/>

## Table II.—Academic Staff Appointments and Promotions

### *Faculty of Arts and Science*

Ernest Wilson Sheldon, M.A., Ph.D., Professor Emeritus of Mathematics.  
Edward Charles May, A.M., Ph.D., Assistant Professor of Classics.  
Charles Samuel Burchill, M.A., Assistant Professor of History.  
George Moore Self, M.A., Ph.D., Assistant Professor of History and Political Economy (Calgary Branch).  
Edgar Phibbs, M.A., Assistant Professor of Mathematics.  
Edwin T. Sheffield, B.A., Assistant Professor of Mathematics.  
Manoel Faucher, L. en Droit, M.A., Assistant Professor of French.  
Henry Bertram Mayo, M.A., Assistant Professor of Political Economy.  
Henry Kreisel, M.A., Sessional Lecturer in English.  
Richard Stephen Eaton, Mus.B., Lecturer in Music.  
John Benjamin Taylor, A.O.C.A., Lecturer in Art.  
Ernest Raymond Whitehouse, B.A., Lecturer in Drama.  
Eric John Hanson, M.A., from Sessional Instructor to Lecturer in Political Economy.  
Jeanne Elise Olsen, B.Ed., M.A., Sessional Instructor in Botany.  
Robert William Rimmer, B.Sc., Sessional Instructor in Chemistry.  
Jack Ryer, B.Sc., Sessional Instructor in Chemistry.  
Nathan Safran, M.Sc., part-time Sessional Instructor in Chemistry (Calgary Branch).  
John Laurie, B.A., part-time Sessional Instructor in English (Calgary Branch).  
Allin Williams Frost, B.Sc., B.Ed., part-time Sessional Instructor in Mathematics.  
Leonard Carl Pallesen, B.Sc., M.Ed., part-time Sessional Instructor in Mathematics (Calgary Branch).  
Catherine Barclay, B.A., part-time Sessional Instructor in French (Calgary Branch).  
Nicholas John Karateew, part-time Sessional Instructor in Russian.  
Alexander Arthur Snowdon, B.A., B.Ed., Sessional Instructor in Modern Languages.  
Kenneth Howell Hart, M.Sc., Sessional Instructor in Physics.  
Russell Stuart McArthur, M.Ed., part-time Sessional Instructor in Physics.  
Robert Michael Pearce, B.Sc., Sessional Instructor in Physics.  
Arthur Richard James Stephenson, B.A., M.Sc., Sessional Instructor in Physics.  
Hubert Harries, M.Sc., Sessional Instructor in Political Economy.  
Lewis Gwynne Thomas, M.A., Secretary of the Faculty of Arts and Science.

### *School of Household Economics*

Elizabeth Louise Empey, B.Sc., Dietitian, University Dining Room, and Instructor in Household Economics.  
Baunita MacLaren Young, B.Sc., Assistant Dietitian, Education Cafeteria.  
Irene Miller, B.Sc., Sessional Instructor in Household Economics.

### *Faculty of Agriculture*

LeRoy Peter Vernon Johnson, M.Sc., Ph.D., Associate Professor of Genetics and Plant Breeding.



Harold Hugh Draper, B.S.A., M.Sc., Lecturer in Animal Science.  
Robert Hugh Knowles, B.S.A., Lecturer in Horticulture and Grounds Superintendent.  
Joan Stephens, B.Sc., Sessional Instructor in Poultry Husbandry.  
David John Lubert, B.Sc., Sessional Instructor in Dairying.  
John Wooster Kenwood, M.Sc., Sessional Instructor in Soils.

#### *Faculty of Dentistry*

John Warrington Neilson, B.A., D.D.S., M.Sc.D., from Assistant Professor to Associate Professor of Periodontia and Preventive Dentistry.  
Robert Arthur Rooney, D.D.S., from Assistant Professor to Associate Professor of Prosthetic Dentistry.  
Roderick Archibald McEwen, D.D.S., from Lecturer to Assistant Professor of Prosthetic Dentistry.  
William Arthur E. Quigley, L.D.S., D.D.S., Assistant Professor of Orthodontia.  
George Edward Decker, D.D.S., Sessional Instructor in Oral Diagnosis.  
William Alvin McIver, D.D.S., Sessional Instructor in Operative Dentistry.

#### *Faculty of Education*

Andrew Leo Doucette, M.A., Director of the Calgary Branch.  
Harold Stewart Baker, M.A., Assistant Professor of Education.  
Bernal Ernest Walker, M.A., Assistant Professor of Education.  
Wesley Fletcher Irwin, B.A., part-time Instructor in Art (Calgary Branch).

#### *Faculty of Engineering*

James Alfred Harle, M.Sc., M.I.E.E., Professor of Electrical Engineering.  
George Wheeler Govier, B.A.Sc., M.Sc., from Assistant Professor to Associate Professor of Chemical Engineering.  
Frank James Hastie, B.Sc., Associate Professor of Electrical and Mechanical Engineering.  
Thomas Patching, B.Sc., Assistant Professor of Mining and Metallurgy.  
Jack Longworth, M.Sc., Sessional Lecturer in Civil Engineering.  
Stewart Ronald Sinclair, M.Sc., Sessional Lecturer in Civil Engineering.  
Andrew Baracos, B.Sc., part-time Sessional Instructor in Civil Engineering.  
Patrick Bouthillier, B.Sc., part-time Sessional Instructor in Sanitary Engineering.  
Ray Alexander Brown, B.Sc., part-time Sessional Instructor in Civil Engineering.  
Murdo Murchison, B.Sc., Sessional Instructor in Civil Engineering.  
Chesley James McConnell, B.Sc., Sessional Instructor in Civil Engineering.  
Benjamin Bernard Torchinsky, B.Sc., Sessional Instructor in Civil Engineering.  
Stephen Russell Hayden, B.Sc., Sessional Instructor in Electrical Engineering.  
Robert William King, B.Sc., Sessional Instructor in Electrical Engineering.  
Joseph Francis Perrier, B.Sc., Sessional Instructor in Electrical Engineering.  
Gerald W. Sadler, B.Sc., Sessional Instructor in Electrical Engineering.

#### *Faculty of Law*

George Hobson Steer, K.C., M.A., Honorary Professor of Law.  
Wilbur Fee Bowker, B.A., LL.B., from Associate Professor to Professor of Law, and Acting Dean of the Faculty.

Alexander Smith, B.A., LL.B., Associate Professor of Law.  
Leonard Cornelius Hawco, B.A., Sessional Lecturer in Law.  
Douglas Walker Cobbledick, LL.B., Instructor in Dental Jurisprudence.  
Ernest Brown Wilson, B.A., LL.B., Sessional Instructor in Commercial Law.

#### *Faculty of Medicine*

Percy Harry Sprague, M.D., M.Sc., F.A.C.P., from Clinical Professor to Associate Professor of Medicine.  
Ernest Hay Watts, B.A., M.D., from Lecturer to Clinical Professor of Anaesthesia.  
Allan Day, M.B., from Assistant Professor to Clinical Professor of Obstetrics and Gynecology.  
Emil Otto Hohn, M.B., B.S., M.Sc., F.Z.S., Assistant Professor of Physiology.  
Albert Ernest Archer, C.B.E., M.B., F.R.S.C.(C), LL.D., Lecturer in Medical Economics and Ethics  
Walter Campbell MacKenzie, B.Sc., M.D., C.M., M.S., F.R.S.C.(C), F.A.C.S., from Instructor to Lecturer in Clinical Surgery.  
Donald Robert Wilson, B.A., M.D., C.M., F.R.C.P.(C), Lecturer in Medicine.  
Harold Lane Richard, M.D., F.R.S.C.(C), Instructor in Anatomy.  
Gordon Edward Myers, M.Sc., Instructor in Bacteriology.  
Alexander Donald McPherson, M.D., Instructor in Mental Hygiene and in Psychiatry.  
Hector Ewart Duggan, M.D., Instructor in Radiology.  
Stanley Greenhill, M.D., D.P.H., Instructor in Clinical Medicine.  
James McKenzie Sinclair, B.A., M.D., Instructor in Clinical Medicine.  
Robert Harvey Whiting, M.D., C.M., Instructor in Clinical Medicine.  
Stephen Sackville Parlee, B.Sc., M.D., M.R.C.O.G., Instructor in Obstetrics and Gynecology.  
Samuel Hanson, M.I.D., M.D., Instructor in Pathology.  
Guy Kent Morton, M.D., Instructor in Neurosurgery.  
Gordon Lohead Wilson, M.D., Instructor in Orthopedic Surgery.

#### *Department of Extension*

John Brian Melville Piercy, B.Sc., Lecturer in Extension.

#### *Department of Physical Education*

Patricia Austin, P.B.H.E., Lecturer in Physical Education.  
W. Donald Smith, B.P.H.E., M.A., Lecturer in Physical Education.

#### *Other Appointments*

Walter Hugh Johns, B.A., Ph.D., Executive Assistant to the President.  
John Maclean Whidden, B.Com., Bursar.  
Edward Frederick Hunter, B.Com., Purchasing Agent.  
John William Evans Markle, B.A., A.T.C.M., Alumni Secretary.  
Harry Theodore Sparby, B.Sc., M.A., Provost.  
Dennis McNeice Healy, M.B.E., B.A., Dip.d'Et.Sup., L-es-L, Docteur d'Université, Warden of Athabasca Hall.  
George Murray Dunlop, M.A., Director of the Summer Session.

Henry George Glyde, A.R.C.A., Curator of Art Exhibits.

James McKenzie Sinclair, B.A., M.D., Assistant Infirmary Physician.

### Table III.—Leave of Absence

Ernest Sydney Keeping, B.Sc., D.I.C., Associate Professor of Mathematics (Sabbatical).

Edward Joseph Hollingsworth Greene, M.A., Assistant Professor of French (Sabbatical).

Henry Weldon Hewetson, M.A., Assistant Professor of Political Economy (Sabbatical).

Whitmore Pipes Calhoun, B.A., D.D.S., Assistant Professor of Operative Dentistry.

Elio D'Appolonia, B.Sc., Lecturer in Civil Engineering.

Geoerge Ford, M.Sc., Lecturer in Civil Engineering.

Helen Barbara Stadelbauer, Lecturer in Art.

Shiela Jean Murray, B.Sc., Instructor in Household Economics.

Gordon Irving Bell, M.D., Instructor in Clinical Medicine.

### Table IV.—Retirements

John Percy Sackville, B.S.A., M.S., Professor of Animal Husbandry.

Edouard Sonet, M.A., Docteur d'Université, Professor of Modern Languages.

Archibald West, Bursar.

### Table V.—Resignations

Alan William Bell, B.Com., M.B.A., C.A., Chief Accountant.

Wray Muriel Bowden, B.A., Ph.D., Lecturer in Botany.

John Clemence Gordon Brown, B.A., Alumni Secretary.

James Kenneth Ferguson, B.Com., C.A., Accountant.

Thomas Hawker, D.D.S., Instructor in Operative Dentistry.

Paulden Ford Knowles, M.Sc., Ph.D., Associate Professor of Field Crops.

Frank W. Peers, B.A., B.Ed., Assistant to the Director, Department of Extension.

James Augustus Romeyn, B.A., M.D., Associate Professor of Bacteriology.

Clarence Rupert Tracy, B.A., Ph.D., Assistant Professor of English.

Astor Ralph Schrag, M.D., Instructor in Psychiatry.



### Table VI.—Registration

TOTAL REGISTRATION (Full and summer session and short courses*) Add cancellations  Less Duplicates	Civilian			Rehabilitation			Totals		
	Men	Women	Total	Men	Women	Total	Men	Women	Grand Total
	46-47 47-48	46-47 47-48	46-47 47-48	46-47 47-48	46-47 47-48	46-47 47-48	46-47 47-48	46-47 47-48	46-47 47-48
1434 1764	1808 1731	3242 3495	2450 2644	115 108	2565 2752	3884 4408	1923 1839	5807 6247	
36 28	22 17	58 45	50 30	12 1	62 31	86 58	34 18	120 76	
1470 1792	1830 1748	3300 3540	2500 2674	197 109	2627 2783	3970 4466	1957 1857	5927 6323	
27 48	49 46	76 94	83 139	5 6	88 145	110 187	54 52	164 239	
1443 1744	1781 1702	3224 3446	2417 2535	122 103	2539 2638	3860 4279	1903 1805	5763 6084	
<b>I. FULL SESSION</b>									
<b>1. Arts and Science:</b>									
B.A.	45 59	100 143	155 202	84 107	16 17	100 124	129 166	255 326	
B.Sc.	138 259	83 86	241 345	251 250	11 9	262 259	409 509	503 604	
B.A., B.Com.	3 3	6 3	9 5	4 3	...	4 3	4 8	7 8	
B.A., B.Ed.	1 1	...	9 3	...	...	...	3 3	9 3	
B.A., B.Sc. (Agr.)	1 2	...	1 2	...	...	...	1 1	1 2	
B.A., B.Sc. (Eng.)	...	...	...	...	...	...	...	...	
B.Sc., B.Ed.	2 1	3 1	5 2	...	...	...	2 2	3 3	
B.A., LL.B.	30 41	...	30 42	77 43	2 2	79 45	107 84	109 87	
B.Sc., D.D.S.	4 13	...	4 13	11 13	...	11 13	15 26	15 26	
B.Sc., M.D.	20 35	8 4	28 39	123 71	4 2	127 73	143 106	155 112	
Pre-Dental	11 11	...	11 11	40 13	...	40 13	40 24	40 24	
2. Agriculture	263 427	213 238	476 665	590 501	33 30	623 531	853 928	1099 1196	
3. Commerce	91 117	4 7	95 124	208 215	...	208 215	299 339	339 377	
4. Dentistry	38 58	16 14	54 72	228 242	4 5	232 247	266 300	286 319	
5. Education:	37 27	...	37 28	71 86	...	71 86	108 113	108 114	
Edmonton:	...	...	...	...	...	...	...	...	
B.Ed.—4 yr.	52 67	132 75	184 142	322 28	36 3	358 31	374 95	542 173	
B.Ed.—3 yr.	11 3	17 17	28 28	254 254	22 22	276 276	265 265	304 304	
B.Ed. in Agr.	6 6	4 4	6 6	7 7	...	7 7	8 8	10 10	
B.Ed. in H.Ec.	...	4 4	4 4	...	...	...	4 4	4 4	
B.Ed. in Ind. Arts	...	...	...	5 5	...	5 5	6 6	6 6	
B.Ed. after B.A.	2 1	2 1	4 1	...	...	...	1 1	1 1	
Jr. E. and I.	54 81	108 146	227 299	3 2	...	3 2	2 2	146 165	
Sr. E. and I.	...	5 5	9 9	...	...	...	5 5	9 9	
Sr. H.S. Cert.	...	6 6	13 13	...	...	...	7 7	13 13	
114 174	242 254	356 428	327 297	36 25	363 322	441 471	278 279	719 750	

Calgary:	3	3	4	6	7	9	2	5	...	...	...	2	5	2	5	14
B.Ed.—4 yr.	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	3
B.Ed.—3 yr.	...	2	...	1	...	2	...	...	...	...	...	...	...	...	...	2
B.Ed.—Agr.	20	4	...	...	20	...	...	...	...	...	...	...	...	...	...	38
B.Ed.—Ind. Arts	41	25	44	84	85	109	18	39	...	...	...	18	39	...	...	43
Jr. E. and I.	...	2	...	2	...	4	...	1	...	2	...	...	1	...	...	85
Sr. E. and I.	9	...	9	...	18	...	...	...	...	...	...	...	...	...	...	114
War Emergency	...	...	...	...	...	...	...	...	...	...	...	...	...	...	18	5
	73	36	57	93	130	129	20	50	...	2	...	20	52	...	93	181
Total in Education	187	210	299	347	486	557	347	347	36	27	383	374	...	...	534	931
6. Applied Science:																
First Year	100	95	1	...	101	95	282	140	...	...	282	140	...	...	382	235
Chemical	38	46	1	1	39	47	71	111	...	...	71	111	...	...	109	158
Civil	56	61	...	...	56	62	86	148	...	...	86	148	...	...	142	210
Electrical	45	52	2	...	47	52	94	167	...	...	94	167	...	...	139	219
Mining	20	21	...	...	20	21	70	102	...	...	70	102	...	...	90	123
Eng. Physics	4	4	...	1	4	5	4	12	...	...	4	12	...	...	8	17
Total	263	279	4	3	267	282	607	680	...	...	607	680	...	...	870	962
7. Household Economics:																
B.Sc., H.Ec.	...	...	92	88	92	88	...	...	13	13	13	13	...	...	...	101
B.H.Ec.	...	...	9	3	9	3	...	...	1	1	1	1	...	...	...	4
	...	...	101	91	101	91	...	...	14	14	14	14	...	...	...	105
8. Law	8	20	1	...	9	20	42	59	...	...	42	59	...	...	50	79
9. Medicine	101	102	14	15	115	117	39	84	1	2	40	86	...	...	140	203
10. Nursing:																
B.Sc.	...	...	102	101	102	101	...	...	8	3	8	3	...	...	...	104
Diploma	...	...	87	112	87	112	...	...	2	1	2	1	...	...	...	113
Diploma Pub. Health	...	...	13	2	13	2	...	...	6	2	6	2	...	...	...	4
Diploma T. & Superv.	...	...	4	2	4	2	...	...	...	...	...	...	...	...	...	2
	...	...	206	217	206	217	...	...	16	6	16	6	...	...	...	223
11. Pharmacy:																
B.Sc.	16	21	16	21	32	42	50	65	4	3	54	68	...	...	66	110
Diploma	4	...	...	1	4	1	7	9	3	...	10	9	...	...	11	10
	20	21	16	22	36	43	57	74	7	3	64	77	...	...	77	120

Table VI.—Registration—Continued

	Civilian			Rehabilitation			Totals		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
	46-47	47-48	46-47 47-48	46-47	47-48	46-47 47-48	46-47	47-48	46-47 47-48
<b>12. Graduates:</b>									
M.A. ....	17	18	25	11	18	29	28	36	64
M.Sc. (Arts) .....	23	24	28	8	12	20	31	36	67
M.Sc. (Agr.) .....	13	9	13	8	7	15	21	16	37
M.Sc. (Eng.) .....	13	19	19	4	5	9	17	24	41
M.Ed. ....	14	24	18	9	33	42	23	57	80
Special .....	10	12	26	4	7	11	14	19	33
B.D. ....	3	4	3	1	....	1	4	4	8
	93	110	124	45	82	127	138	192	330
<b>13. Auditors</b> .....	9	2	17	....	2	2	9	4	13
<b>14. Partials</b> .....	20	29	50	12	17	29	32	46	78
Less Cancelled .....	1130	1402	2532	2246	2389	4635	3376	3791	7167
	36	28	64	50	30	80	86	58	144
	1094	1374	2468	2196	2359	4555	3290	3733	7023
<b>II. SUMMER SESSION</b>									
Edmonton .....	321	355	1199	188	254	443	509	609	1118
Calgary .....	18	21	20	53	27	80	71	48	119
Banif** .....	1	4	8	....	1	1	1	5	6
	340	380	1227	241	282	523	581	662	1243
<b>III. SHORT COURSES</b>									
Diploma Dairying .....	....	10	10	13	3	16	13	13	26
Adv. Obstetrics .....	....	....	....	....	....	....	....	....	....
	....	10	13	13	3	16	13	13	26
<b>Grand Total</b> .....	1434	1764	3242	2450	2644	5094	3884	4408	8292

\*Except the non-degree-credit students at the Banif School of Fine Arts, who numbered 590.

\*\*Only students taking courses for degree credit reported here.



**Table VII.—Distribution of Students According to Home Address  
and Birthplace, Session 1947-48**

**A. British Commonwealth and Empire:**

	Home Address	Birthplace
(a) Canada:		
Edmonton .....	1925	861
Calgary .....	672	581
Lethbridge .....	107	116
Medicine Hat .....	53	70
Red Deer .....	56	47
Vegreville .....	24	49
Wetaskiwin .....	25	28
Camrose .....	19	31
Cardston .....	32	50
Others .....	1706	1776
Alberta .....	4619	3609
Nova Scotia .....	1	20
Prince Edward Island .....	1	6
New Brunswick .....	...	7
Quebec .....	1	12
Ontario .....	16	108
Manitoba .....	18	160
Saskatchewan .....	143	468
British Columbia .....	111	146
	4910	4536
(b) Other parts of the British Commonwealth and Empire:		
British Isles .....	4	132
Dominions .....	1	6
Crown Colonies .....	3	5
	8	143
	4918	4679

**B. Other Countries:**

Balkan States .....	....	14
France .....	....	2
Germany .....	....	11
Poland .....	....	61
Russia and the Ukraine .....	....	23
Scandinavian States .....	....	17
United States of America .....	7	94
Others .....	2	32
	9	254

**C. Information not Specified**

14	8
4941	4941

**Table VIII.—Distribution of Students According to Sex and  
Marital Status, Session 1947-48**

Rehabilitation Students					Civilian Students				
Male		Female		Total	Male		Female		Total
Single	Married	Single	Married		Single	Married	Single	Married	
1339	1051	87	7	2484	1273	129	1027	28	2457

**Table IX.—Distribution of Full-time Students According to Faculty or School and Year of Course, Session 1947-48**

Faculty or School	1st Year	2nd Year	3rd Year	4th Year	5th Year	6th Year	7th Year	Total
Arts and Science .....	409	435	316	36	....	....	....	1196
Agriculture .....	90	131	94	24	....	....	....	339
Commerce .....	113	110	95	1	....	....	....	319
Dentistry .....	....	26	50	23	15	....	....	114
Education .....	538	202	154	37	....	....	....	931
Engineering .....	235	355	260	112	....	....	....	962
Household Ec. ....	39	32	34	....	....	....	....	105
Law .....	....	....	45	16	18	....	....	79
Medicine .....	....	....	50	45	35	41	32	203
Nursing .....	77	60	50	21	18	....	....	226
Pharmacy .....	52	45	23	....	....	....	....	120
Graduate Studies .....	100	64	....	3	1	....	....	168
B.D. Degree .....	2	1	1	....	....	....	....	4
Specials .....	8	13	21	21	1	....	....	64
Not Specified .....	....	....	....	....	....	....	....	111
	1663*	1474	1193	339	88	41	32	4941

\*Total number of Freshmen is 1553 (i.e. 1663 less Graduate Studies, B.D., and Specials).

**Table X.—Gifts**

From the National Research Council, \$30,707.70 in accountable advances for research work under the direction of the following staff members: Dr. R. K. Brown, \$800; Dr. M. M. Cantor, \$1,710; Dr. R. G. H. Cormack, \$150; Dr. W. G. Corns, \$950; Dr. S. G. Davis, \$375; Dr. W. F. Gillespie, \$500; Dr. E. H. Gowan, \$500; Dean R. M. Hardy, \$2,057.31; Dr. A. W. Henry, \$1,700; Dr. G. Hunter, \$2,550; Dr. P. F. Knowles, \$625; Dr. G. O. Langstroth, \$750; Dr. A. G. McCalla, \$6,596; Dr. L. W. McElroy, \$2,150; Dr. H. R. MacLean, \$500; Dr. J. L. Morrison, \$1,121.10; Dr. H. Orr, \$3,203.98; Dr. W. Rowan, \$400; Dr. D. B. Scott, \$835.81; Dr. R. F. Shaner, \$300; Dr. W. C. Stewart, \$250; Dr. H. R. Thornton, \$1,160; Dr. J. Tuba, \$948.50; Dr. O. J. Walker, \$575.

From the National Cancer Institute of Canada, three grants in aid of cancer research: Dr. R. K. Brown, \$2,500; Dr. H. E. Rawlinson, \$400; Dr. R. B. Sandin, \$1,350.

From the Defence Research Board, two research grants; Dr. G. O. Langstroth, \$1,500; Dr. D. E. Smith, \$1,500.

From the Central Mortgage and Housing Corporation, \$5,000 for research carried on by Dean R. M. Hardy, on behalf of the Prairie Rural Housing Committee.

From the City of Edmonton, grants totalling \$2,000 for investigations on concrete pavement in the Department of Civil Engineering.

From the Canadian Construction Association, \$1,000 for research on highway projects in the Department of Civil Engineering.

From the Alberta Transit Mix Concrete Company, Calgary, \$250 for an investigation of the durability of Alberta aggregates in the Department of Civil Engineering.

From the Barley Improvement Institute, \$3,500 in aid of the barley breeding programme in the Department of Plant Science.

From the Maple Leaf Milling Co., Limited, \$1,200 in aid of research on soft wheats in southern Alberta in the Department of Plant Science.

From Purity Flour Mills Limited, \$1,200 for research on white spring wheats in southern Alberta in the Department of Plant Science.

From Robin Hood Flour Mills Limited, \$1,200 for research on white spring wheats in southern Alberta in the Department of Plant Science.

From Ellison Milling Company, \$500 in support of research on white spring wheats in the Department of Plant Science.

From Line Elevators Farm Service, \$500 in aid of a breeding project with hard winter wheat in the Department of Plant Science.

From North American Cyanamid Limited, \$500 for use by Dr. J. R. Fryer in experiments on the chemical defoliation of legume seed crops.

From Naugatuck Chemical Company, \$500 for experimental work by Dr. W. G. Corns on the chemical control of weeds.

From the Consolidated Mining and Smelting Company, \$500 to assist Dr. J. E. Bowstead's investigations on the use of urea.

From Merck & Co., Ltd., 500 miligrams of biotin, worth about \$3,000, for use in poultry research in the Department of Animal Science.

From the United Grain Growers Limited, \$300 to assist investigations on turkey rations in the Department of Animal Science.

From Mr. Claude Gallinger, Edmonton, two Belgian geldings and a Shorthorn steer, for the Department of Animal Science.

From the Canadian Foundation for the Advancement of Pharmacy, a total of \$1,375 for a teaching fellowship and for research work in the School of Pharmacy.

From a Calgary firm, \$1,000 for the building programme of the Banff School of Fine Arts.

From Mr. Hugh Banderob, Banff, \$50; from Mr. W. E. Hopper, Midland, Penn., \$25; from Miss Inger Kroman, San Leandro, California, \$15; to the Banff Foundation, to be used for the Banff School of Fine Arts.

From an anonymous donor, \$20 in aid of Dr. R. B. Sandin's cancer research.

From Mrs. Elizabeth T. Weir and the Law Society of Alberta jointly, \$10,000 to the University of Alberta Foundation to establish "The John Alexander Weir Memorial Fund" for the purchase of books for the Law Library.

From the Law Society of Alberta, \$500 for the purchase of books for the Law Library.

From the College of Physicians and Surgeons of Alberta, \$200 for the purchase of books for the Medical Library.

From the Senior Class of 1948, \$110 for the purchase of Library books of a general educational nature.

From Mr. Byron H. Wilson, St. Albert, thirty-three bound volumes of the "Minnesota Horticulturist".

From Mr. G. W. Auxier, Edmonton, a complete set of "The Territories Law Reports" (7 volumes), "The Western Law Reporter" (34 volumes), and 28 volumes of "The Western Weekly Reports".

From the University of Western Ontario, the Canadian Medical Association, the late Professor G. M. Smith, and numerous other sources, gifts of books to the Library.

From Mrs. E. K. Broadus, Boston, Mass., a set of Boston Symphony Orchestra programmes.

From the Canadian Universities Returned Men's Association, University of Alberta, \$164.96 to bring the Loan Fund to a total of \$1,000.

From Dr. J. T. Ross, Edmonton, an LL.D. gown.



From Northland Automatic Appliances Limited, Calgary, a Bendix automatic washing-machine for use in the School of Household Economics.

To the Department of Geology Museum and teaching collections: over 130 specimens of corals and modern shells from Miss Laura Woolverton, London, Ont.; a plaster plaque and specimens of rock from Italy and Gibraltar from G. C. Hamilton; a section of a mastodon tusk from L. H. Phinney; museum specimens, including labradorite from Labrador, from T. C. Mewburn; a suite of 16 hand specimens of ores and minerals from Franklin Furnace, N.J., from Dr. A. G. Scott; other specimens of ores, rock, and minerals from Dr. Y. O. Fortier, Geological Survey, Ottawa, L. H. Cole, Bureau of Mines, Ottawa, C. E. B. Conybeare, S. J. Kidd, J. L. Carr, B. H. Bludgeon, International Uranium Co. Ltd., D. B. Bullock, D. Pickett, Dr. D. F. Kidd, Dr. R. E. Folinsbee, Western Printing and Lithographic Co., J. Gleddie, W. R. S. Henderson, A. H. Gibson, H. M. Whittles, R. J. Rousseau, R. P. Douglas, H. O. Ritchie, W. H. Hargreaves, W. J. Dean, C. R. Wray; fossil specimens from H. Noblitt, J. R. Ower, G. Robinson, Miss N. Robb, L. M. Clark, C. E. Anderson, A. Kowalchuk, R. W. Edie, J. Hargreaves, E. M. Robers, A. H. Manifold, R. Harps.

From the "Friends of the University": 104 individual donors, \$1,020; from Mr. R. J. Dinning, President of Burns and Company, \$500 for research in the Department of Animal Science; from John Dower, \$100; from T. Eaton Company, \$100; from the Edmonton Journal, \$100; from an anonymous donor, \$50 for cancer research. Unless otherwise specified, these gifts are used to provide bursaries and for the purchase of special research equipment and books, for example, a grant was made to the Library for the purchase of "Beilstein's Handbuch der Organischen Chemie", the Malone Society Reprints, 87 volumes.

### **Table XI.—New Scholarships, Prizes and Medals**

#### *Available to University of Alberta Students*

From the family of the late Mr. Sam J. Gorman, oil royalties, not to exceed a total of \$7,000, to establish "The Sam J. Gorman Scholarship" of \$200 per annum, to be awarded to an undergraduate student in the petroleum engineering course.

From Mr. and Mrs. Alfred Chard, a \$5,000 Dominion of Canada bond to endow "The Joseph Dolson Oliver Mothersill Memorial Scholarship", to be awarded to a student selected for outstanding contribution to student life in the University, especially through good citizenship and active support of student government.

From Canadian Industries Limited, a fellowship of \$750 per year for graduate work in Chemical Engineering or Chemistry.

From the Western Canada Dental Society, \$500 to be added to the M. H. Garvin Scholarship Fund and \$200 to be added to the Post-graduate Scholarship Fund in the Faculty of Dentistry.

From the Alberta Tuberculosis Association, a fellowship of \$500 to be awarded to a graduating student in the Faculty of Medicine to facilitate his training in the tuberculosis field; also two prizes of \$75 and \$25 respectively for essays on tuberculosis, to be awarded to fourth-year medical students.

From G. H. Wood & Company Limited, a scholarship of \$500 to be awarded to a student in the Faculty of Medicine.

From the Edmonton Furniture Dealers Association, an annual scholarship of \$250 for a period of five years, in honour of Mr. W. T. Henry, to be awarded to a student in the School of Commerce.

From the Western Daily Newspapers Advertising Managers' Association, an annual scholarship of \$100 for a period of five years, to be awarded to the student entering his final year in the School of Commerce with the best average standing in courses giving a suitable preparation for specialization in advertising.

From the Lethbridge Municipal Chapter, I.O.D.E., a War Memorial Bursary of the value of \$500, payable over a period of three years to a Lethbridge student selected by an I.O.D.E. committee.

In accordance with the terms of a bequest to the University from the late Mr. A. Cristall, an annual scholarship of \$100 for three years, to be awarded preferably to a student in a course in architecture.

From the Government of France, \$250 for scholarships in oral French at the Banff School of Fine Arts.

From the Volunteer Overseas Medical Officers' Association, a \$200 increase in the endowment of "The Moshier Memorial Medal", in order to maintain it in perpetuity.

From the Canadian Dental Association, two annual prizes of \$125 and \$75, for award to fourth-year undergraduate students in attendance at dental faculties of Canadian universities who submit essays in the War Memorial Scholarship Essay Contest.

From Mrs. J. E. Olsen, an annual prize of \$35 in the Department of Botany, to be known as "The J. E. Olsen Prize".

From Mrs. E. L. Fuller, a prize of \$25 in English 57, to be known as "The Ernest Lorne Fuller Memorial Prize".

From Dr. E. T. Allan, \$50, and from Dr. S. C. Hodgson, \$25, as annual contributions to the Post-graduate Scholarship Fund in Dentistry.

From the International Accountants' and Executives' Corporation of Canada, a \$25 prize for award to a student in the School of Commerce.

From Mrs. R. E. Staples, \$15 for "The Ray E. Staples Memorial Prize" in the School of Nursing, to be awarded to the graduand who has the best record for kindness and proficiency in bedside nursing.

From Professor M. H. Long, "The George Malcolm Smith Memorial Prize", an annual book prize for the student with the highest standing in History 65.

From Merck & Co. Ltd., the book prize in the School of Pharmacy increased from one to two awards annually.

From the Government of Belgium, five books for award to an Honours student in French.

From the Swiss Legation, Ottawa, a set of four books, to be known as "The Minister of Switzerland's Prize in French".

*Available to Western Board of Music students*

From Mr. E. U. Rylands, Lethbridge, an annual scholarship of \$100 for a period of three years.

From Mr. W. A. MacDonald, Publisher of the Edmonton Journal, an increase from \$100 to \$200 in the annual scholarship offered

From the Alberta Women's Institute, Viking, \$50.

From Mr. J. Drever, Rycroft, \$25.

From Mr. J. Lawrence, Red Deer, \$25.  
From Mrs. E. Newton, Grande Prairie, \$25.  
From the Thomas Greentree Chapter, I.O.D.E., Drumheller, two awards of \$15 each.

## Table XII.—Staff Publications

### *Department of Accounting*

- Winspear, F. G. Theory and practice in the training of accountants. Can. Chartered Acct. 51:350-360. 1947.  
Campbell, J. D. Fiscal policy of corporation management, 1946. Can. Chartered Acct. 51:124-137. 1947.

### *Department of Anatomy*

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### *Department of Animal Science*

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Sinclair, R. D. Swine nutrition. Can. J. Comp. Med. 2(12):360-368. 1947.  
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McElroy, L. W., Kastelic, J., and McCalla, A. G. Thiamin and riboflavin content of wheat, barley and oats grown in different zones in Alberta. Can. J. Res. F, 26:191-200. 1948.  
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### *Department of Bacteriology and Hygiene*

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### *Department of Botany*

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### *Department of Chemistry*

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- Kolthoff, I. M., and Harris, W. E. Mercaptans as promoters and modifiers in emulsion copolymerization of butadiene and styrene using potassium persulfate as catalyst. I. Mercaptans as promoters. *J. Polymer Res.* 2:41-48. 1947. II. Mercaptans as modifiers. *Ibid.* 2:49-71. 1947. III. Calculation of molecular weights and intrinsic viscosities of polymers from mercaptan consumption data. *Ibid.* 2:72-81. 1947. IV. Definition and calculation of modifier efficiency. *Ibid.* 2:82-89. 1947.
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### *Department of Civil and Municipal Engineering*

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### *Department of Classics*

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### *Department of Dairying*

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### *Department of Dentistry*

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#### *Department of English*

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#### *Department of History*

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#### *Department of Household Economics*

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#### *Department of Mathematics*

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*Department of Modern Languages*

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*Department of Political Economy*

Stewart, A. Variability in crop yields as affecting values of land. *Proc. Joint Conf. Am. Soc. Farm Managers and Rural Appraisers and Appraisal Inst.* Can. 31-38. 1947.

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#### *Department of Soils*

- Bowser, W. E., Erdman, R. L., Wyatt, F. A., and Newton, J. D. Soil survey of Peace Hills sheet. Rep. 14. Alta. Soil Survey. 1947.
- Bentley, C. F., and Rost, C. O. A study of some solonetzic soil complexes in Saskatchewan. *Sci. Agr.* 27:293-313. 1947.
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#### *Faculty of Law*

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### **Report of Dean John Macdonald of the Faculty of Arts and Science**

#### *Calgary Branch—Faculty of Education*

For the first time, courses in Arts and Science have been provided in the Calgary Branch of the Faculty of Education. In 1947-48 instruction was provided in Mathematics, Chemistry, English, French, Political Economy, and History. Instruction in Political Economy and History was given by Dr. G. M. Self, who was added to the staff of the Department of History for this purpose. A temporary arrangement was made with the Calgary School Board for the loan of teachers to instruct in the other subjects mentioned. It is expected that this temporary arrangement will come to an end by the appointment of full time instructors in the subjects



concerned by next September. The total registration in the Arts and Science classes was 64.

### *Progress During Session*

Two points may be mentioned in this connection: (a) Dr. Healy and Dr. D. B. Scott are acting on the committee appointed by the President, under the chairmanship of Professor Stewart, to investigate the provision for education in the Humanities throughout the University. I have instructed Dr. Healy and Dr. Scott to give attention from this point of view to our present curriculum for the B.A. and B.Sc. degrees, ordinary and Honors. Their recommendations will be reported in due course. (b) The plan of advance registration has been continued this session. This plan has proved useful not only in the way of facilitating the preparation of the time-table, for which it was instituted, but also for checking irregularities of registration which, in view of the large numbers involved, are difficult to check in the fall in sufficient time to adjust the courses of the students concerned.

### *Departmental Reports*

I wish to append reports concerning research in some individual departments as follows:

*Botany, Report of Dr. E. H. Moss*—The staff of the Department has been able to do a considerable amount of research. Dr. Cormack has conducted research on root hairs and related problems. Dr. Whyte has initiated work on physiology of rooting in woody cuttings. Dr. Moss spent a few weeks last summer investigating grass land and the vegetation in the Peace River region. A successful botanical foray was held at Lesser Slave Lake in August. One of the major projects of the Department is the production of a manual for the flora of Alberta. Considerable work was done during the year on this project.

*Chemistry, Report of Dr. O. J. Walker*—Research has been carried out actively in the Department despite the confusion of working in a building under construction. All the members of the Department have research programmes under way, and in some of these have been assisted by twelve graduate students working towards their Master's degrees. The problems being undertaken are greatly varied and cover fields in Organic, Inorganic, Analytical and Physical Chemistry. Funds with which to carry out research have been supplemented by grants from the National Research Council, the Research Council of Alberta, the Canadian Cancer Commission, the Defence Research Board, and other agencies. The titles of the fourteen papers in the list of publications (Table XII) will give some idea of the types of research in progress.

*Physics, Report of Dr. G. S. Langstroth*—Research grants have been held by various members of the Department during the year as follows:

(a) A National Research Council grant of \$500 to Assistant Professor Gowan for study of atmospheric ozone absorption. One feature of the project is the development of a convenient and rapid photo-electric instrument for use in the studies.

(b) A Defence Research Board grant of \$2,300 to G. O. Langstroth in collaboration with R. J. Lang for the prosecution of certain extramural projects of the board.

(c) A \$400 grant from the General Research Committee of the University to

G. O. Langstroth for aid in a research connected with spectrographic analysis. This research deals with the effect of general sample composition on intensities of spectral lines as radiated by a commonly used source. A feature of the work is the development of an optical shutter capable of acting in time periods of less than 10 micro-seconds.

(d) A grant of \$1,850 from the National Research Council to Assistant Professor D. B. Scott for a cloud chamber investigation of positive tracks from a beta ray source. Approximately 1% of the cloud chamber tracks produced from particles from certain beta ray emitters exhibit a curvature associated with positive charge. At present tracks from a uranium  $X_1$  source are being studied and other beta ray sources will be obtained from the Chalk River Section of the National Research Council.

*Political Economy, Report of Professor A. Stewart*—The Department has assisted in a number of public activities including the Taxation Commission (Mr. J. W. Judge, Commissioner), the Freight Rates Enquiry, and the Alberta Power Commission. Mr. Hubert Harries has been assisting in the preparation of the Province's case on freight rates. Mr. E. J. Hanson was highly commended by Mr. Judge for his work in connection with the Taxation Commission. Professor Stewart was Chairman of the Board of Arbitration dealing with the application of the Edmonton Transit System employees for an increase in wages.

A number of research projects have been advanced or completed during the year. These include a study of Municipal Problems supported by funds from the Rockefeller Foundation; an Edmonton Food Cost Index financed by a grant from the General Research Fund of the University; and a Poplar Markets Survey carried out by the Research Council of Alberta. The Department has continued to co-operate with the Economics Division, Dominion Department of Agriculture, in studies of land classification, irrigation and farm management, and has administered the grant made by the Provincial Department of Agriculture for his purpose. Supervision has been given to the Dairy Farm Cost Survey. Mapping and statistical work was done under the direction of the Department for the Alberta Power Commission.

*Zoology, Report by Dr. R. B. Miller*—Dr. Rowan continues to conduct his annual animal cycle enquiry. Mr. Moore is now assisting with the task of working over the returned questionnaires and preparing new ones to be sent to observers throughout the province.

Mr. Moore spent part of last summer in a survey of game conditions in the Peace River area and antelope in the south. This winter, at the request of the Game Commission, he began work on a magpie control study.

Dr. Hughes has been continuing her studies of development, particularly of anomalies.

Dr. Miller, in co-operation with the Provincial Fishery Branch, is continuing with investigations in the field of fisheries management. Studies under way include: control of whitefish parasites (part of this problem is being carried on in co-operation with Dr. Huston of the School of Pharmacy); efficiency of whitefish hatchery; management of whitefish fisheries; life histories and growth of native fishes.

During the winter reports on fisheries and waters surveyed the past summer have been prepared. To assist with this work, the Fishery Branch attached a girl to the department from November to May inclusive. Reports have been completed on

Jumping Pound drainage, Sheep River drainage, Highwood River drainage, and numerous smaller surveys.

### **Report of Dean J. Macdonald, Chairman of the School of Commerce**

The 1947-48 session brings with it the first major graduating group of rehabilitation students from the School of Commerce. It is gratifying to note that the demand by the various segments of the business world for the graduates in Commerce has been excellent, with the result that the major portion of the graduands have either been placed or have promises of placement at this time. The pattern of placement is very diversified and covers the fields of the accounting profession, teaching profession, governmental service (income tax department) and general business. The excellent service and co-operation of the National Employment Service during the past year should be mentioned in respect to the favorable placement results which have been attained in this particular field.

#### *Research*

During the 1947-48 session, a start was made on certain research work in the field of accounting and with the financial aid of a General Research Grant the services of one of the final year Commerce students, M. D. L. Brandell, were obtained for this work. One project, "Accounting Treatment of Carry Back and Carry Forward Tax Provisions re Business Losses", was completed. This is at present under review by a committee of the Institute of Chartered Accountants of Alberta. Certain additional preliminary work has been done on the topic of "Extraordinary Charges" which will not be finished until some time in the 1948-49 session. In these projects we have been working in close co-operation with both the Provincial and Dominion Institutes of Chartered Accountants.

### **Report of Professor Mabel Patrick, Director of the School of Household Economics**

Twenty-three members of the senior class have accepted student training positions, eighteen in hospitals and five in commercial or other institutions. Three have accepted positions as District Home Economists. Of the remaining eight, three plan to teach, one plans to enter the Faculty of Education next session, one plans to continue her studies, one plans to do extension work and two are undecided.

The demand for dietitians and teachers continues. There is an increasing demand for instructors for University positions. Fortunately, more graduates are doing advanced work. During this year three have obtained Master's degrees and twelve others have been studying. Of these, seven are on fellowships.

### **Report of Dean R. D. Sinclair of the Faculty of Agriculture**

The activities of the Faculty of Agriculture in the University of Alberta fall into two main divisions—(1) academic and (2) experimental. For convenience in presenting this report the work of the Faculty will be sub-divided under these headings.

It may be appropriate, however, to mention that in addition to teaching and participating in research work, members of the staff of the Faculty of Agriculture

devoted a considerable amount of time to extension work during the year. It is felt that two good purposes are served by maintaining close contact with the farm people of Alberta. Staff members are kept closely in touch with problems arising on the farm and the results of research are made available to farmers with a minimum of delay. Direct communication with farmers has been made possible through addresses at farm meetings, agricultural short courses and field days, and by means of correspondence and personal interviews. The usual bulletins and circulars have been issued and radio talks were given throughout the year on the Alberta Farm and Home Forum programme, CKUA. The Dean of the Faculty of Agriculture serves as chairman of a committee made up of representatives of the Faculty of Agriculture and the Alberta Department of Agriculture which directs the Alberta Farm and Home programme. Close co-operation was offered by all departments to the Department of Extension of the University and the Extension Service of the Alberta Department of Agriculture.

Several staff members served during the year on national committees functioning under the authority of the National Advisory Committee on Agricultural Services and on various agricultural committees operating in the provincial sphere.

#### *Academic*

The addition of a poultry unit to the Animal Science Farm during the year made for great improvement in the teaching of Poultry Husbandry.

Fifteen students engaged in agricultural research were registered in the School of Graduate Studies. Of this number eight took their undergraduate training at other institutions.

A six-months' Dairy Short Course was offered during the year under a joint arrangement between the Department of Dairying and the Dairy Branch of the Alberta Department of Agriculture with assistance from Canadian Vocational Training. Upon the successful completion of the course a diploma or certificate is granted the students, depending upon their academic attainment. During the year this course was made available to civilian students as well as veterans.

The Faculty of Agriculture co-operated with the Department of Extension in offering short courses for the Institute of Appraisers and for Sanitary Inspectors of the Alberta Department of Public Health and in sponsoring Farm Young People's Week.

The passing of Dr. Frank Archibald Wyatt during the year is recorded with deep regret. Dr. Wyatt joined the staff of the University of Alberta as Professor of Soils in 1919 and he directed the work of the Department of Soils with distinction for a period of twenty-eight years. In addition to his teaching duties, which he carried on enthusiastically, he was responsible for the direction and co-ordination of soil surveys in Alberta and for the initiation of experimental work which led to greatly increased productivity of Alberta soils, particularly in the gray wooded soil zone.

Professor J. P. Sackville retired as Professor of Animal Science in July, 1947, after a period of twenty-five years of service to the University of Alberta. Under his direction the Department of Animal Science developed into a strong teaching department and carried out a programme of experimental work of great value to the livestock industry of Alberta.



Students in the Faculty of Agriculture did good work during the 1947-48 term and particularly gratifying was the performance of student veterans. No cases requiring disciplinary action were reported to the office of the Dean. As a means of establishing close contact between staff and students a Staff-Student Relations Committee was organized during the year. A second annual Field Day was sponsored by the Agricultural Club. The student body participated enthusiastically in the various events included in the programme and a number of commercial organizations supported the event by contributing prizes and trophies.

### *Experimental*

Although the teaching load on the staff was increased as a result of an upward trend in size of classes, the research work in the Faculty of Agriculture was continued actively during the year. As in previous years, several grants were received from commercial organizations and from the National Research Council. Certain projects continued to receive assistance from a University Committee on Agricultural Research Grants.

During the year the Department of Agricultural Engineering installed a modern Taylor hydraulic dynamometer for testing the horse-power of farm motors. Observations were made on the operation of sugar beet harvesting machinery in southern Alberta and the performance of large scale land clearing equipment in use on the Wanham project in the Peace River country was studied. Assistance was provided the Alberta Department of Agriculture in conducting field days on tillage and harvesting machinery and the Department participated in the work of the National Committee on Agricultural Engineering.

Laboratory studies and feeding trials were conducted by the Department of Animal Science during the year. Work was continued on a project dealing with the nutritional value of Alberta grasses grown under different conditions of soil and climate. Results secured indicated that this line of research should be continued. Swine nutrition studies included an investigation into the influence of gestation-lactation ration on the pre-natal and post-natal development of the progeny. The effect of different treatments with iron, copper, and vitamins on nutritional anemia in suckling pigs was also studied. The use of urea in the rations of dairy cows was given further consideration. A co-operative project dealing with supplementary feeds for pregnant ewes, sponsored by the National Sheep Committee, was continued. Beef cattle investigations centred on determining the minimum amount of grain required in the finishing process to produce commercial beef of acceptable grade. High priced grain and a world shortage of grain for direct human consumption prompted this particular study. Poultry research dealt with the effect of various processes on the nutritional value of meat and fish meals and also included the formulation of turkey and chick starters and turkey breeding rations.

The twenty-sixth annual Feeders' Day was held early in June and attracted several hundred people to the University Farm to hear reports on the livestock feeding experiments conducted during the preceding year. This occasion undoubtedly makes a considerable number of new friends for the University each year.

In the Department of Dairying the National Research Council, through the Committee on Food Preservation, supported a bacteriological study on churning cream quality. Simple practical methods were found permitting infrequent delivery

of high quality churning cream. In continuing the rancidity studies the method of measuring milk lipase developed in the Department was found to be promising in the study of bacterial lipases.

Experiments conducted by the Department of Entomology in the Edmonton area showed that almost complete control of the Currant Fruit Fly (*Epochra canadensis*) is possible with a single spraying of DDT during the pre-oviposition period. Preliminary experiments with Gammexane for the control of wireworms gave promising results.

Research in the Department of Plant Science received financial assistance during the year from the National Research Council, United Grain Growers Ltd., Canada Malting Co., National Grain Company, and Naugatuck Chemical Co. This assistance is greatly appreciated. The trend toward fundamental research in this Department has been continued in nearly all branches of research.

The plant breeding work with cereals includes extensive studies with barley and soft wheat and preliminary work on winter wheat. Considerable promising hybrid barley material has been developed. Work on forage crops included a continuation of the improvement programme with Ferax alfalfa, Altaswede red clover, and Altagold sweet corn. A new project under the joint auspices of the Department and the Dominion Laboratory of Plant Pathology is concerned with the development of a strain of alfalfa resistant to crown rot.

Recommendations regarding seed treatment for grains, based largely on work done in the Department of Plant Science, were generally accepted in Western Canada during the past year. Work was carried out on the seed treatment of vegetable seeds and the ergot disease of cereals and grasses was investigated.

Work with the selective weed killer 2,4-D was expanded in 1947. Most of the research work was fundamental in nature and dealt with the effect of this chemical when injected into plants of sow thistle, wheat, and wild oats.

Research projects in horticulture included resistance of apple varieties to fire-blight injury, susceptibility of crabapples to winter injury, and chemical inhibition of shoot growth in potatoes, carrots, beets, and turnips in storage. The Canadian Seed Growers' trial gardens were again carried by the Department.

Visitors' Day was held on August 9th and drew a very good crowd. Opportunity was provided for an inspection of the work in progress in Plant Science.

Soil surveys were continued actively in 1947 by the Department of Soils in co-operation with the Dominion Experimental Farms Service and the Alberta Research Council. A report covering two and one-half million acres in the Peace Hills Sheet has been completed. An extension of an earlier irrigation soil survey east of Taber was carried out during the year in anticipation of future irrigation development in that area. In addition substantial areas were surveyed in the Peace River district. The Alberta Soil Survey is now organized under the co-operation of the Department of Soils, University of Alberta, Dominion Experimental Farms Service, Division of Field Husbandry, Agricultural Engineering and Soils, and the Research Council of Alberta.

Experimental work with commercial fertilizers and crop rotations was continued on the black soils field at Edmonton and on the gray wooded soils at Breton as well as in co-operation with a number of farmers on black and gray soils. These

investigations again showed the importance of using phosphate fertilizers on grain crops on many black soils and the very great value of sulphates when used on legume crops grown on deeply leached gray wooded soils.

The requests by farmers, gardeners, and greenhouse operators for analyses of soil samples and advice regarding soil fertility problems continue to take up considerable time in the Department of Soils but it is felt that this is a very useful service and that it helps to maintain close contact with the farming population. The research work supported by National Research Council grants on legume inoculating and soil sterilization has been continued.

In conclusion it may be in order to record that a fine spirit prevailed in the Faculty of Agriculture during the year 1947-48. Staff members extended themselves to give the best possible instruction to the enlarged classes and at the same time carry out their other responsibilities in connection with administration, research, and extension.

### **Report of Dean R. M. Hardy of the Faculty of Applied Science**

The first large post-war class entered the third year of the Faculty this session. This resulted in a series of new problems in regard to laboratory accommodation and equipment. Considerable reorganization was required of the work of the third and fourth years. The staff situation was difficult, and while junior staff appointments were fairly adequate, there is no doubt but that the senior staff again carried serious overloads.

The employment opportunities for graduates from all the Applied Science Departments are again exceptionally good. Moreover, the employment situation for undergraduates in Applied Science for the coming summer is also remarkably good considering the large number of students who are available for work.

The demand for post-graduate instruction increased considerably, due to the fact that many junior instructors were only interested in academic appointments if graduate courses were made available to them. Graduate instruction and research work were carried on in each of the Departments of Chemical, Civil, Electrical and Mining Engineering.

Two graduate students, one serving on a Shell Oil Scholarship and one on a National Research Council Scholarship, were engaged in the Department of Chemical Engineering in research on "Flow Characteristics of Clay and Limestone Slurries" and "Gas Phase Nitration of Natural Gas." One graduate student in the Department of Electrical Engineering was engaged in a research project entitled "Slots in 3-cm. Rectangular Wave Guides." In the Department of Mining Engineering one graduate student was engaged in a research project entitled "Specific Surface of Mineral Powders by the Air Permeability Method."

In the Department of Civil Engineering the equivalent of about eight full-time men were engaged on research projects during the past year. Some were engaged full-time, a considerable number part-time, and several were working on graduate programs. Work on the large soil testing program incidental to the Department of Transport Airport Evaluation Research project was continued and was largely completed during the present session. "An Investigation of Air Entrainment in Concrete and its Effects on Durability" was conducted as a graduate student project and financed by the City of Edmonton. A graduate



student project was also undertaken entitled "Mechanical Treatment of Topsoil for Use in Highway Embankments." This project was suggested by the Alberta Research Council following a request from the Department of Public Works of the Province. The Department supervised and made available the facilities of the Soil Mechanics Laboratory for a project entitled "Highway Research" under the auspices of the Alberta Research Council. A program entitled "A Survey of the Foundation Conditions in the Edmonton Area" was also handled by the Department under a grant from the National Research Council. The Department also supervised a project entitled "Rural Sanitary Facilities" financed by the Central Mortgage and Housing Corporation in co-operation with the governments of the three Prairie Provinces.

A significant development in the research work being done in the Civil Engineering Department is the fact that the work is being conducted in co-operation and with the financial support of other interested organizations.

After careful study a decision was reached to expand certain courses to provide for specialized training in fields concerned with the development of the natural resources of this province. A degree course in Petroleum Engineering was planned to commence with the session 1948-49. The curriculum of the Mining Department was reorganized to provide for a series of options to suit the interest of students primarily interested in a career in the Coal Mining industry. An organization was established to permit a select group of students to proceed from the second year of Applied Science to a specialized course leading to a degree in Engineering Geology. In co-operation with the Faculty of Agriculture it was decided to offer a course through the Department of Civil Engineering leading to a degree in Irrigation Engineering. Students will be accepted for this course from the second year of Applied Science commencing with the session 1948-1949. The Faculty of Applied Science also agreed to offer two optional courses to students in the Faculty of Agriculture who are interested in Irrigation as applied to agricultural practice. At the present time there is a considerable demand for graduates with these specialized types of training in this province and it is anticipated that this demand will increase within the next few years.

In view of the fact that the work of this Faculty concerns itself with the basic training of students for entrance into the various engineering fields it was decided to change the name commencing with the session 1948-1949 to the Faculty of Engineering.

### **Report of Dean W. Scott Hamilton of the Faculty of Dentistry**

While not as great as the previous session, the number seeking admission to Dentistry is still more than we can possibly accommodate, and it appears that the same condition will exist next year. There are approximately forty-five taking either pre-dentistry or second year of the combined courses. The Registrar's office already has on file a goodly number of applications from outside points. Enquiries are being received from foreign countries such as China, South America and others.

During the year members of our faculty have given short extension lectures and clinics in different cities of Western Canada. It is our hope that we may soon be in a position to extend this service much further.



We are looking with enthusiastic pride to the opening of our new dental clinic. Construction is well on the way and everything will be in order for the beginning of next session. This clinic has been designed in accordance with the latest developments in dental science for the benefit of both our students and the patients whom we treat.

## **Report of Dean M. E. LaZerte of the Faculty of Education**

### *Calgary Branch of the Faculty*

In September 1947, the program at Calgary was expanded to include the second year of the B.Ed. Lecture rooms and laboratories have been built in one of the large huts adjacent to the main building, which is occupied jointly by the Faculty of Education and the Institute of Technology and Art.

### *Investigations and Research*

The Faculty of Education is expanding its program of Supervisory service in the Clover Bar School Division. The following projects have been undertaken during the present school year.

1. Remedial Reading Programme is being conducted in Great West Schools where marked retardation was discovered.
2. Health enterprises are under way in Rabbit Hill and Clearwater Schools, where two inexperienced teachers are in charge of the work.
3. A science project along the lines suggested in the latest revision of the Elementary Programme of Studies is being conducted in Oliver School District.
4. A rather comprehensive English survey was made in the Leduc High School by the English staff and the senior students of the Faculty. A remedial programme based on the findings of the survey is now in progress.
5. In two of the larger urban schools of the Division, viz. Fort Saskatchewan and Griffin, a testing program in Mathematics was completed.
6. In co-operation with the Department of Education, guidance clinics are being conducted in East Clover Bar and Calmar districts.
7. The Dean of the Faculty is Chairman of a Committee of the Canadian Education Association charged with the responsibility of studying and reporting at the September 1948 conference on "Canada's Teaching Personnel." The Dominion wide study has been carried out under the Dean's direction by five graduate students of the Faculty of Education. The investigation covers the topics:
  - (a) Function of the school.
  - (b) The Teacher Shortage: Causes and remedies.
  - (c) Recruitment selection and training of Teachers.
  - (d) Prestige of the Teaching Profession: Standards, Prestige.
  - (e) The Teacher and the Community.

### *Rural Supervisory Programs*

In addition to the work undertaken in Clover Bar School Division all members of the Faculty of Education staff went out for the weeks May and June to visit rural schools in various Divisions of the Province and give assistance to teachers having difficulties with specific problems.

## **Report of Acting Dean F. W. Bowker of the Faculty of Law**

### *Teaching Staff*

For the first time in the history of the Faculty the teaching staff consisted of three full-time members: the Acting Dean, Mr. Alex Smith of Edmonton and Mr. Leonard Hawco, a former Rhodes Scholar from Newfoundland. Addition of Messrs. Smith and Hawco to the staff has been a most satisfactory solution of the very serious problem which the faculty has faced in the past few years of obtaining an adequate full-time staff.

Practising barristers have continued to give invaluable help as sessional instructors, although it was not necessary to call on them to teach as many courses as in the preceding two sessions. The sessional instructors are: L. Y. Cairns, K.C.; R. Martland, K.C.; G. W. Auxier, K.C.; A. T. McLean.

Geo. H. Steer, K.C., Acting Dean during the two sessions prior to the present, has retired from part-time teaching. Ever since the Law School was founded he has taught several of the most important and difficult courses. One of the outstanding lawyers in Alberta, he gave the benefit of his special knowledge of property law and equity to every student who ever graduated from this faculty up to the spring of 1947. It is doubtful if anyone will ever again be found who can or will render such valuable service over such a long period of time, while carrying on a busy private practice. Fortunately he has been made Honorary Professor of Law so the faculty will continue to have the benefit of his advice.

### *Curriculum*

Both in the United States and Canada there are various movements on foot to modernize the law school curriculum and to adapt methods of teaching to present-day needs. These have all been given careful study and it is proposed to revise the curriculum when details are settled and the teaching staff can implement the change.

### *Employment of Graduates*

There is a serious shortage of lawyers throughout the province. All of the 17 graduating students found offices in which to article months ago and many firms who badly require a student must go without. There is little likelihood of relief until 1950 when the first large class will be graduated. In most, if not all, of the other western provinces and Ontario the enrolment is much heavier than here and the demand comparatively smaller. This may result in a migration of young graduates to Alberta.

### *Graduate Study*

Four graduates of this faculty are pursuing their studies elsewhere: two at the Harvard School of Business Administration, one at the Harvard Law School and one at the University of Toronto. The pursuit of graduate work is a fairly new development and is to be encouraged.

### *Law Society of Alberta*

The profession continues to show an intense interest in the support of the law school, and the relationship between the faculty and the Law Society of Alberta continues to be of the best.

## **Report of Dean J. J. Ower of the Faculty of Medicine**

Pressure of applications for first year Medicine, overwhelming here as everywhere on this continent, necessitated a very careful study of the situation in order to accommodate as many veterans as possible without unduly penalizing high standing civilians. To overcome this a special scheme of selection was submitted to the Board of Governors for consideration and, this being approved, arrangements were carried through to accept every veteran who had qualified and also a few very well qualified civilians. It is felt that the veteran peak has been passed and the majority of the necessarily deferred and qualified civilians can be absorbed moderately quickly and be able to proceed with their medical courses.

The expanded number of first year acceptees (50) presented the Faculty Council with the future, but now to be considered, problem of supervising the hospitalization of a larger graduating class than could be accommodated in residence in affiliated Edmonton hospitals. In addition it was found that the shortness of the Alberta medical session was not, in the eyes of those administering certification of graduate training and specialist programmes, fully compensated by the twelve months of undergraduate internship. When equated with the four-year course plus a junior graduate internship programme of eastern medical schools, the Alberta curriculum showed approximately three months' deficiency. This was having effect of penalizing certain of our graduates when applying for some very desirable positions leading to more advanced training in Medicine.

An intensive study of the situation was undertaken and the Faculty Council, after some weeks of careful deliberation and consultation, recommended that the undergraduate internship be dropped from the course, the session extended by approximately a month and the course be reduced to four years, which would bring it into the general pattern on this continent.

With the approval of the University authorities it was decided to convert the medical course to the new pattern at once, with the result that there will be two graduating classes in Medicine presented at the spring Convocation, one representing a five-year (including internship) training and the other four years' training which, in the case of this particular class only, will be augmented by a special programme of teaching during the residence in approved local city hospitals next session.

With the cessation of the stress imposed by acceleration during the war and the gradual filling of staff vacancies, research is assuming a more important role in faculty activities and almost every department is undertaking, in proportion to its facilities and staff for so doing, a research programme. The faculty sponsored Medical Research Club, the purpose of which is to study and correlate local research in the Medical Sciences, has been very active this session and at the last meeting changed its name to the Collip Research Club in order to honor one of our distinguished medical graduates who has been very sympathetic to our research problems. A statement of the various research projects recently published and at present in progress within the Faculty, is given in Table XII.

The annual refresher course, undertaken by the Faculty of Medicine in conjunction with the College of Physicians and Surgeons of Alberta, took place in the week of May 10th. As noted in last year's report, a plan of graduate training for the Medical Specialties is being undertaken, with the approval of the Com-

mittee on Graduate Studies, for a limited number of trainees. It is still in the experimental stage and no detailed programme of studies has as yet been submitted for formal approval.

The relationships between staff and students have at all times been very good and the co-operation of the latter during this period has been all that could be desired.

### **Report of Professor Helen E. Penhale, Director of the School of Nursing**

The School of Nursing of the University of Alberta has completed another year of progress in the advance toward the aim of a well organized, integrated and carefully guided program of scientific, social and professional instruction and experience which will develop expertness in nursing care in the home, in the hospital and in the community.

The reorganization of the School has been accomplished with Miss Helen Penhale as Director and Miss Helen Peters, Miss Madeline McCulla, Miss Francis McQuarrie as Assistants. Miss Penhale divides her responsibilities between the direction of the undergraduate program and the course of studies for the post-graduate program in Teaching and Supervision in Schools of Nursing. Miss McCulla is responsible for the teaching of the "Health and Social Aspects" in the basic curriculum and has given considerable time to the educational program for the students in the community affiliations arranged.

Miss Helen S. Peters was away for two months in the fall travelling through Eastern Canada and the Eastern United States observing in other Hospitals and Schools of Nursing.

The major problem with which one has to cope in Education and Administration is that of unstable staffs. Resignations and new but temporary appointments make continuity of service and qualitative teaching and nursing service very difficult and discouraging to those who must accept the major responsibility. Clinical instruction has been the most uncertain during the past few years. Clinical instructors have been appointed as planned for last year, to surgical, orthopedic, outpatient, and operating room service.

The Advanced Course in Practical Obstetrics was again offered for the four months of September to January. The three students enrolled successfully completed the course and are now in District Nursing positions with the Alberta Provincial Department of Health. This is the type of work in which the nurse assumes responsibility for the prenatal and delivery care of women in isolated areas. The instruction the nurses receive in the Course in Obstetrics enables them to perform their duties with greater confidence and ability. A maximum number of students are expected in the fall class of 1948.

A three-day Institute is being conducted in May in Guidance in Nursing under the auspices of the Department of Extension of the University of Alberta and the School of Nursing. It is hoped that nurses from many parts of Alberta will attend this short period of instruction, as it is considered an excellent educational opportunity to learn more about guidance principles in the field of nursing.

The members of the staff of the School of Nursing have assumed an active role in nursing activities in their own school, in Edmonton and in the Province. Miss Penhale has continued as Chairman of the Educational Policy Committee of



the Alberta Association and Secretary-Treasurer of the Provisional Council of University Schools in Canada. Miss McCulla has carried on the activities of the Nurse Practice Act Committee, and functioned as the President of the University of Alberta School of Nursing Alumnae and the President of Edmonton District No. 7 of the Alberta Association of Registered Nurses.

The staff of the School of Nursing continues its efforts to establish and to promote improved nursing education in order to take a prominent place amongst the better schools of America. This takes time, effort and money, and at times the total picture is discouraging, but with determination and slow but certain progress, greater developments are anticipated.

It might be mentioned in closing that the first year of existence for the new Nurses' Home has contributed materially to a greater feeling of rapport and kinship within the ranks of the student body and the Alumnae of the School. The spacious comfort and the opportunity offered for relaxation will be beneficial to the welfare of the students.

### **Report of Dr. M. J. Huston, Director of the School of Pharmacy**

Due to the fact that there were more applicants than could be accommodated, it was necessary to establish a quota of 51 in the first year of the course. Those applicants who were not accepted continued their internships in dispensaries throughout the province. Applications for next year indicate that a similar situation will obtain at that time.

In addition to the regular classes in Pharmacy, lectures in Materia Medica were again given to two classes of nurses at the University Hospital.

Four graduate students continued work towards M.Sc. degrees in this department.

#### *Experimental*

The Canadian Pharmaceutical Association has requested the Canadian Conference of Pharmaceutical Faculties to undertake the revision of the Canadian Formulary. The School of Pharmacy of the University of Alberta has been assigned the revision work on the preparations for external use. During the year a large number of preparations have been formulated, tested and compared in order to obtain the most satisfactory for inclusion. Much of this work was undertaken by senior students under supervision of the staff.

Work has continued on the development of sensitive photofluorometric test for crystalline and urinary estrogens and androgens. A number of chemicals related to the carcinogens has been synthesized and tested for estrogenic potency.

A satisfactory perfusion device for the isolated dog leg was devised and used to test the effect of certain drugs on the response of striated muscle to nerve stimulation. The effects of some central nervous system depressants, analeptics and antihistaminics on muscle response were also investigated on the intact animal.

Two chemical assay methods for penicillin were compared. Efforts were made to obtain a procedure to prevent the destruction of thiamin by iron compounds.

This department co-operated with the Department of Zoology on research aimed at the control of tapeworm in fish.

Two grants in support of research were received from the Canadian Foundation for the Advancement of Pharmacy.

### *Extension*

The School of Pharmacy, with the Edmonton Retail Druggists' Association, sponsored a series of six meetings on the "Profession of Pharmacy." Papers on pharmaceutical topics of interest to students and to practising pharmacists were presented and scientific films shown.

The School of Pharmacy also organized a two-day Refresher course in conjunction with the annual meeting of the Alberta Pharmaceutical Association.

Three extension bulletins covering recent advances in Pharmacy were prepared and circulated to the pharmacists of the province.

During the year members of the staff presented a number of papers to service clubs, professional societies and similar groups. In addition many inquiries concerning practical problems in Pharmacy were answered.

### **Report of Dean J. MacDonald, Chairman of the School of Graduate Studies**

The large number of students carrying on graduate work with the assistance of the Department of Veteran Affairs accounts for the heavy registration in the School. In this connection, I would like to say that there is likely to be a considerable number of applications from undergraduate D.V.A. students who are completing their undergraduate course this spring. Such of these students as the University recommends will be favorably considered for continued assistance from D.V.A. in graduate work. I have, therefore, requested the departments in this faculty to give attention to the question of the number of graduate students they will be prepared to accommodate and supervise without prejudice to the other duties they have to perform.

The distribution of candidates according to departments has been as follows:

Animal Science .....	4
Applied Science .....	23
Bacteriology .....	1
Biochemistry .....	3
Chemistry .....	12
Dairying .....	2
Education .....	64
English .....	9
Entomology .....	2
History .....	12
Geology .....	6
Modern Languages .....	5
Pharmacy .....	4
Philosophy and Psychology .....	14
Plant Science .....	5
Political Economy .....	3
Physics .....	5
Soils .....	2

Zoology .....	3
Special Grads. ....	28
<hr/>	
Total .....	207

### *Recommendations for Degrees*

The number of students recommended for Master's degrees at Convocation in May, 1949, are as follows:

M.A. ....	6	M.Sc. (App. Sci.) .....	5
M.Sc. ....	9	M.Ed. ....	6
M.Sc. (Agr.) .....	5		

### **Report of the Librarian, Miss Marjorie Sherlock**

During the year 1947-48 every department in the Library felt the effects of the increased student registration. In the Reference and Circulation Department and the Branch libraries in particular the increase in service, as the large classes of students progress from their first to their senior years, has been very marked.

#### *Staff*

The staff of the Library consisted during the past year of 19 full-time members (nine of whom were professional librarians), four half-time assistants, and a delivery boy.

Thirty-six student assistants were employed in the Library for varying periods weekly, many of them as Supervisors in the two Library Study Rooms. The policy was continued this year of employing students who intend to enter the library profession for desk work so as to give them experience. Three such students who will graduate this spring are already enrolled for the fall term at Library Schools, and a number of others have planned their courses here with a view to taking library training later.

#### *Quarters*

With a registration of some 4700 students and the addition of more than 10,000 volumes to our collection during the past year, the problem of space has become very acute. Additional shelving has been added wherever possible but some thousands of less-used books have had to be placed in dead storage until we move to the new building.

#### *Cataloguing and Orders*

During the year the Department ordered 4701 titles, accessioned 6820 volumes, catalogued 10,340 volumes (including 626 bound journals), lettered 7378 volumes, withdrew 223 volumes, and typed 30,966 cards. The Chief Cataloguer and an assistant again spent May and June in Calgary, continuing the re-cataloguing of the Education Library there.

With the removal of the Hospital Nursing School library from the Hospital to the new Nurses' Residence, it was found to be in need of cataloguing and classification and our help was sought by the Director of the School. This library is not a part of the University Library, but we were glad to be of assistance. The entire collection was re-shelved, labelled and put in order by our Cataloguing

Department, a card catalogue made for it, and some 200 additional volumes classified. In January 1948, at the request of the Hospital Board, the University Library took over the ordering, cataloguing and preparation of books for this collection, on a cost basis.

### *Reference, Circulation and Periodicals*

The heavy registration of the session has been very evident in the increased activity of this department. During the day-time hours (from 7:45 a.m. to 5:30 p.m.) the Main Reading Room, seating 81 readers, was filled to capacity. During the evenings (7-10 p.m.) a total number of 15,779 readers used this room, as compared with 9,188 evening readers last year. The Library Study Room across the rotunda, seating 75 readers, was used to capacity by 43,639 readers during supervised hours (9 a.m.-5 p.m.) and by a large but undetermined number at other times.

In addition to the reference service given to faculty and students, this department is responsible for periodicals, government documents and pamphlet material, inter-library loans, and the binding of all books and journals for the entire University Library. During the year 955 current periodicals were ordered and recorded (an increase of 65 over last year), 1851 volumes were prepared for binding, an increase of 966 volumes over 1946-47. Foreign periodicals, unobtainable during the war years, are becoming available once more and every effort is being made to build up the gaps in our files for that period, with a consequent increase in our binding work.

During the year 153 volumes were borrowed for staff members on Inter-library loan, and 42 volumes loaned to other libraries. Twelve microfilms and 10 photostats were also obtained for those engaged in research problems.

Circulation statistics soared again this past year. In 1946-47 the Main Library circulation, 64,460, was double that of the preceding year. In 1947-48 the figure increased to 80,945, which includes: Books and periodicals from the Stacks, 21,642; books from the Reserve shelves, 59,303. The Reserve collection in the Main Library now consists of 126 shelves containing the required reading for 91 courses—more than 3,000 volumes in all. Extramural loan borrowing during 1947-48 was almost double that of last year; 1,278 books were sent out by mail to 415 registered borrowers.

### *Branch Libraries*

*Education Library (Edmonton).* During 1947-48 the Education Librarian, with two full-time assistants, circulated 53,648 books, an increase of 13,864 over last year's figure. Both the Education Reading Room and Library Study Room were used to capacity. The latter is open at all hours for the students' use, although it is not supervised after 4:30 p.m. During the year 23,197 readers made use of this room, an increase of 6,540 over 1946-47.

*Education Library (Calgary).* This library has had a very successful year, with a substantial increase in books, pictures, periodicals and equipment. When the University decided to offer six courses in Arts at Calgary, a good foundation collection of books in these fields, as well as a basis reference collection, was added to the books on Education already in the library.



Miss Grant, Education Librarian, and a half-time assistant, circulated an average of 200 books a day during the session, and approximately 300 readers used the library daily.

*Medical Library.* Circulation statistics for the year are: Reserve books (for over-night use), 4,509; books from the Stacks, 2,153; journals and pamphlet material, 3,901; a total of 10,575. This is an increase of 33.7 per cent over last year's total of 7,901. Circulation of reserve books for use in the Library, of which no systematic count is kept, was correspondingly increased. A total of 2,701 items were circulated to city and rural doctors.

Subscriptions to medical journals numbered 237, of which 27 were new.

*Law Library.* The great increase in registration in the Law Faculty since 1945 necessitated the addition of a second reading room adjoining the Law Library, to accommodate the extra students and new books.

Much effort and money was expended during the year to bring our collection of Law books up to a proper standard, by the purchase of new books and sets, and by the binding or re-binding of hundreds of volumes already in the library. One valuable item which we were able to secure—a duplicate set of English Law Reports—enabled us to remove our former set from use long enough to save it, by rebinding, from complete disintegration.

#### *Branch Reading Rooms*

*Agriculture Reading Room.* Very extensive use was made of this reading room, which accommodates some 20 readers and several thousands of the books most used by students of Agriculture. This past year 9,179 readers used the room, and 3,946 books were circulated, as compared with 2,985 readers and 1,402 books in 1946-47.

*The Chemistry and Nursing Reading Rooms*, each seating about 30 readers, and containing most of the books in their fields, were used to capacity during the session. Owing to the large number of students using the *Mining Reading Room* it was found necessary to completely reorganize the book collection, and to employ a half-time assistant there.

#### *Stock of Books*

During the year 3,942 volumes were added by purchase, and 332 by gift, giving us at March 31, 1948, a total of 93,850 accessioned volumes. In addition there are about 13,000 volumes as yet unaccessioned in the Education Library (Edmonton) and some 10,000 volumes in the Education Library (Calgary) giving a total book stock in the University Library system of approximately 116,850 volumes.

#### *Radio Talks*

During the past winter 22 weekly book talks were given by staff members of the University Library and Extension Library in the series *Books at Random*. This is the third season that this series has been presented over CKUA.

The Librarian wishes to express her appreciation of the unfailing loyalty and co-operation of the library staff, without which it would have been impossible to provide, with existing facilities, the expanded service described in this report.

## Report of the Provost, Professor H. T. Sparby

### *Student Government*

During the past term the Students' Council, under the strong leadership of Mr. George P. Hartling, has given effective direction to student affairs on the campus. Mr. Hartling and his Council have indicated on all occasions a willingness to accept responsibility for the direction and control of all student organizations and their activities. They are deserving of congratulations for having discharged this responsibility efficiently and well.

### *Students' Union Building*

For several years the erection of a Students' Union Building has been a favorite topic for discussion and study on the campus. Now it appears that these plans, at least in part, are about to be realized. Twelve months ago a Students' Union Building Advisory Board was set up. This Board, under the able chairmanship of Mr. W. G. Pybus, has given much time to studying detailed building plans and investigating financing possibilities. The culmination of the board's work came on February 4, 1948, when the student body, on a building referendum, voted 1,484 to 501 in favor of a plan calling for the early construction of the first unit of the building. This unit will contain office space for Students' Union business, lounges, cafeteria, and other facilities for student social affairs. Construction is scheduled to begin in 1948 and will be financed by \$100,000 already in the Students' Union building fund, together with a provincial government \$400,000 interest-free loan, repayable over a 20-year period.

### *University Residences*

The past year has been a particularly successful one for all three University residences. The wardens, Miss C. I. MacFarlane, Mr. A. A. Ryan, and Dr. D. M. Healy, have carried out ably their supervisory duties. They report that the students' house committees, under the chairmanship of Miss Margaret Coates and Mr. Jack Armstrong, have functioned efficiently. Several social affairs held in Athabaska Hall for resident students were well planned by the house committees and thoroughly enjoyed by the large numbers of students who attended.

### *Student Organizations and Clubs*

As the enrolment at the University during the past few years increased, it was natural that the number of student organizations and clubs should also increase. During the past year, however, although a few new organizations have been started, there were indications that two or three of the established clubs were becoming less active. It is probable, therefore, that a peak in the number of student organizations is being reached. With respect to proposed new organizations, the traditional policy of requiring them to solicit the approval of the Students' Council before receiving recognition as a legitimate University organization continues to be followed.

Several organizations continue to carry on activities which contribute a great deal to the cultural life of the University and which give much pleasure and enjoyment to the student body as a whole. The Mixed Chorus, the Symphony Orchestra, the Ballet Club, and the Dramatic Society have all achieved a high degree of success in their year's work, and rightly deserve the feeling of pride which the University has for them.

In athletics, too, the season has been a successful one. Among numerous outstanding events, two of the high-lights were the rugby game last fall with the University of Toronto and the final game of the hockey series with Saskatchewan when the Golden Bears rallied to win the Halpenny trophy.

### *Social Activities*

There have been several very successful formal functions during the past year. The majority of these were held over town at either the Macdonald Hotel or the Trocadero Ballroom. The planning of these affairs was very ably handled in each instance by the sponsoring student organization, and the manner in which the dances were conducted reflects favorably on the student body of the University.

There has been some expression of opinion among students that a larger number of informal dances on the campus is desirable, even if this means a decrease in the number of formal functions.

No record of student activities on the campus would be complete without paying tribute to the invaluable contributions made by Miss M. Simpson, Adviser to Women Students. She shows consistently a keen interest in every event, and the student committees who are responsible for the planning and direction of social functions seek her valuable advice on every occasion.

### *Discipline*

Student behaviour in general during the past year has been very good, and the willingness of the Students' Council and the Enforcement and Disciplinary Committee of the Students' Union to co-operate in dealing with the few cases that have arisen has been most gratifying.

## **Report of the Chairman of the Committee on Physical Education, Dr. P. S. Warren**

The training in the Department of Physical Education continued to expand this year, on account of the greater numbers taking the required courses and through the introduction of a more varied program of activities. Due to the increased enrolment at the University, with the resultant difficulties involved in timetabling laboratory hours for classes, the organization of classes in Physical Education suitable for all grades of students became almost impossible. This difficulty, however, will decrease as the enrolment in the first two years at the University decreases, since the number of laboratory sections in the science departments will be smaller.

The total number of students registered in the Department of Physical Education in the prescribed course for the year was 910, of which 617 were men and 293 were women. The great majority of these students are in the Faculties of Arts and Science, Agriculture and Engineering. The students in the Faculty of Education do not take the prescribed course of Physical Education, but take instead a special teacher-training program in Physical Education. This work is done under the Department of Physical Education and includes 447 students. The teacher-training programme involves a considerable amount of lecturing by the Department.

The Department of Physical Education was instrumental in introducing a program of intramural sports during the year. These are competitive sports for

the benefit of the senior students who lack the necessary time or ability to participate in sport at intercollegiate or inter-Faculty levels. This program was well organized and carried out, and proved to be of great interest to senior students. The Department was also called upon to give a great deal of assistance in organizing and coaching various sporting activities under the jurisdiction of the University Athletic Board. Most of the teams that were so successful in inter-collegiate sports were coached by members of the Department.

Absenteeism from the classes in the prescribed course of Physical Education is still a problem. Several students are being reported to their respective Faculties as having failed in their attendance. The attitude of a small percentage of students toward physical exercise is poor and, even though attending the class, they show great unwillingness to participate wholeheartedly in the exercise, and use every possible excuse to stay away. This type of student will continue to be a problem.

**Report of the Director of Medical Services, Dr. J. W. Scott**

Cases totalling 93 treated during this session by admission to the University Hospital are listed in the following table.

**Table XIII—Medical Service Cases Admitted to University Hospital**

<i>Medical</i>		<i>Surgical</i>	
Tonsilitis .....	1	Fractured Nose .....	2
Pneumonia .....	8	Appendicitis (observation) .....	12
Diarrhoea .....	2	Fractured clavicle .....	2
Suspect Diabetes .....	1	Dislocation Medical Meniscus .....	1
Frozen Fingers .....	1	Dislocation vertebrae .....	1
Rheumatic Heart Disease .....	1	Appendectomy .....	15
Bilateral Pleuritis .....	1	Dislocation cartilage .....	1
Pneumonitis and Otitis .....	1	Fracture tibia .....	1
Investigation Cancer .....	1	Removal cartilage knee .....	1
Pleurisy and effusion .....	1	Fracture thumb .....	1
Diabetes .....	3	Fracture ankle .....	1
Multiple Sclerosis .....	1	Dislocation shoulder .....	3
Carbuncle .....	1	Low back strain .....	2
Duodenal Ulcer .....	2	Dislocation cervical spine .....	1
Flare-up old tuberculosis .....	1	Torn tendon .....	1
Gastric Hemorrhage .....	3	Fracture wrist .....	1
Skin conditions .....	8	Contusion leg .....	1
	—	Torticollis .....	1
Total .....	37	Knee operation .....	1
		Suture repairs .....	5
		Injury hand tendons .....	2
			—
		Total .....	56

Three students were treated in other hospitals.



**Table XIV—Infirmary Report**

<i>Student Population</i>		<i>Infirmary Capacity</i>	
Male Students .....	3,791	Male Beds .....	7
Female Students .....	1,150	Female Beds .....	6
<hr/>		<hr/>	
Total .....	4,941	Total .....	13

*Freshmen Medical Examination*

Male .....	953
Female .....	422
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Total .....	1,375

*Doctor's Visits and Consultations*

Infirmary visits .....	252
Consultations in Infirmary .....	3,931
Daily average of Infirmary consultations .....	19
To Infirmary Bed-patients .....	870

*Daily Out-patients' Treatments and Consultations*

Male .....	6,814
Female .....	2,462
<hr/>	
Total .....	9,276
Daily average of Out-patients .....	49
For Session 1946-47 .....	38.6

*Summary of Infirmary Bed-patients*

Patients	Number	Hospital Days	Average Stay
Male .....	133	597	4.4 days
Female .....	66	375	5.3 "
<hr/>		<hr/>	
Totals .....	199	972	4.8 "
For Session 1946-47 .....	230	1,057	4.8 "

**Table XV—Injuries Due to Sports Activities**

Sport	No. of Cases	Cost of Treatment
Archery .....	2	\$ 5.00
Badminton .....	10	36.00
Ballet .....	1	10.00
Basketball .....	49	205.00
Bicycling .....	1	10.00
Boxing .....	11	21.00
Curling .....	1	.....
Football .....	2	18.00
Hockey .....	59	487.05
Mountain Climbing .....	1	7.00
P.E. and P.T. ....	39	462.00
Rugby .....	26	102.00
Skating .....	9	13.00
Skiing .....	6	197.50
Sleigh-riding .....	6	18.00
Soccer .....	10	45.00
Swimming .....	1	.....
Tennis .....	3	6.00
Tobogganing .....	2	74.50
Track .....	3	5.00
Tumbling .....	2	.....
Vaulting .....	1	56.00
Volleyball .....	5	6.00
Wrestling .....	7	92.00
<b>Total</b> .....	<b>257</b>	<b>\$1,876.05</b>

*Staff*

The Infirmary staff for 1947-48 session comprised: Dr. J. W. Scott, the Director of Medical Services; Dr. J. F. Elliott, the Infirmary Physician; and Dr. M. M. Cantor, Dr. Kidd, Dr. Berezan and Dr. L. M. Sinclair, Assistant Infirmary Physicians; Dr. M. Hutton, Gynaecologist. Consultants who visit the Infirmary: Dr. Gourlay, Dr. Mewburn, Dr. Rentiers and Dr. McPherson. Infirmary Nurses comprised the Matron, First Assistant, Second Assistant and a Practical Nurse, also relief nurses as required. Sub-staff consisted of a cook and a housekeeper. For the first time the services of a part-time stenographer were obtained.

**Report of the Adviser to Student Veterans, Dr. A. J. Cook**

*University Admissions and Registration*

There were 485 student veteran admissions in September, 1947. The procedures worked smoothly, arrangements having been made well in advance to have the last terminal tests in August.

There was a sizable group of faculty transfers, mostly due to failure. The Department of Veterans' Affairs supplied two counsellors during registration to

assist me in the counselling necessary to the completion of these changes of registration.

### *Failures and Supplementals*

The policy which allowed the student veteran to have supplementals as needed, seems to have been justified. Serious failures were interviewed by the Deans and recommendations as to supplementals made accordingly. The data for serious failures are interesting:

#### *Three Failures*

Failed 3 finals (granted supps.) .....	52
Did not write supps. ....	12
Passed all or all but one supp. ....	23
*Failed 2 or 3 supps. ....	17

#### *Four or More Failures*

Failed 4 or more finals (granted supps.) .....	35
Did not write supps. ....	19
Passed all or all but one supp. ....	6
*Failed more than one supp. ....	10

\*Such students thereby lost training allowances.

Many would not return to the University.

In consequence of this seemingly liberal policy, there were no cases of failure where the men felt aggrieved. At least neither D.V.A. nor I ever heard of them. Yet there was effective elimination of the unfit.

There seem to be hints here that the personal or psychological approach is better than a legal or prescriptive one. Should not all cases of serious failure be treated individually?

### *Pre-Matriculation Schools and Refresher Courses*

Schools were operated at Edmonton and Calgary until the middle of August, 1947. The school at Edmonton was then closed, arrangements were made to conduct all refresher courses under University auspices in September 1947.

Courses were given in the following subjects with numbers in attendance as noted: Chemistry (75); French (13); Mathematics (102); Physics (108).

All instructors reported a fine student attitude.

The Pre-Matriculation School Committee held its final meeting on April 22, 1948. Two points of interest are noted:

- (1) Two studies of groups of students who took placement tests are in progress. Apparently the placement tests have been remarkably successful in screening and in serving as dependable guides for counselling. The surplus tests are being turned over to the Department of Education, and further use may be made of them.
- (2) Mr. J. H. Ross stated that an effort has been made to establish a pre-matriculation school for the prairie provinces, but with little probability of success. He stated that the veterans' scheme had pretty well cleared the country of men with interrupted education, but that in a few years

the back log of such men and women might be considerable, particularly if times get hard.

#### *Student Veteran Loan Board*

From September 1947 until April 1948 inclusive a total of 54 loans were granted to the total amount of \$10,100.00.

With increased dependents' allowances and with the ceiling removed from wife's earnings, pressure on the loan fund may be eased.

There were no loans to freshman veterans granted during 1947-48.

#### *Student Housing*

The married men's suites were administered by C.U.R.M.A. as last year. The University and the Students' Union operated jointly a Student Housing Service for general accommodation during late August and September 1947. This service was for all students and proved very satisfactory. A University Housing Committee has been constituted, of which the Provost and Bursar are members, together with representatives of the Students' Union and C.U.R.M.A.

#### *Co-Wed Club*

The Co-Wed Club for the wives of student veterans was formed this winter and the response was remarkable. The interest has been sustained throughout the winter and undoubtedly this club has meant a great deal to married student morale. The advisory committee was made up of members of the Department of Extension Staff and the Alumni Secretary and has given splendid leadership. Thanks are also due to members of the various University departments who gave of their time to helping with the various group activities. This Club is unique in Canada, and is an excellent example of sound adult education.

#### *Canadian Advisory Services Conference*

The conference, sponsored by the Universities Advisory Committee and D.V.A. was held in Quebec City, June 17-22, 1947. The conference was well attended by the Canadian University representatives and by Dominion Government officials (Veterans Affairs, Labor, Employment).

Our contribution to the program concerned Student Veteran budgeting. The conference, subject to the approval of the Universities Advisory Committee, formed itself into a permanent body concerned with matters of counselling in the Universities, to meet annually if possible.

#### *Student Counselling*

The general impression I have of this year's work is that the students have made increasing use of the Advisory Service. My time has been fully occupied through the session.

There have been fewer cases this year where psychiatric assistance was needed. The D.V.A. medical services have been most co-operative in such cases.

Beginning May 15, 1948, the Advisory Service will be absorbed by the administrative officers, the Registrar and Deans.



## **Report of the Commanding Officer, University of Alberta Contingent of the Canadian Officers Training Corps, Lt.-Col. M. L. Van Vliet**

A total of 92 Officer Cadets attended the various Corps camps during the summer of 1947, of whom 75 successfully completed the training. Two other Officer Cadets ceased training at their own request, so that there remain 73 Cadets in the Contingent who completed summer training. Eleven of these will be graduating in 1948 and at least two and possibly three of the number will be entering the Active Force, the remainder receiving their Commissions in the Supplementary Reserve.

During the year lectures have been delivered in Military Geography by Dr. P. S. Warren, and in Economics of Defence by Professor A. Stewart. Military Organization and Tactics were given by Major M. J. Egan, the Resident Staff Officer, and by Major J. R. Stafford, one of the Contingent Officers. Forty hours' lectures in all were delivered in the different subjects.

A total of 45 new cadets has been accepted for training this year, so that total unit strength going to summer training will be 107, the graduating students being excluded from the total. The pattern of distribution between the various Corps is similar to last year but difficulty was again experienced in obtaining sufficient suitable candidates for the technical Corps for which enrolment in the Faculty of Applied Science is a prerequisite.

## **Report of the Commanding Officer, University Naval Training Division, Lieut. R. E. Phillips**

Due to pressure of work resulting from his own studies and instructional work for the University, Lieut. (SB) G. F. Dalsin, R.C.N.(R), resigned from his duties as Commanding Officer U.N.T.D. in the fall of 1947. Mr. R. E. Phillips, of the Electrical Engineering Department, was asked to take on these duties and was taken on the R.C.N.(R) Active List.

Shortly after registration, 25 new students were enrolled in the U.N.T.D. This brought the nominal list up to a total of 51. The maximum complement is still set at 65. After several parade nights it was evident that many of those on the list had no intention of carrying on with training. The enrolment has been decreasing throughout the year for various reasons, until it now stands at 38 active members, an increase of 5 over last year. The present enrolment is broken down into 3 fourth year members who will receive their commission after graduation, 9 third year members, 11 second year members and 15 first year members. Of 10 second year members who came before an Officer's Selection Board in February 1948, 7 passed, and were rated as Officer Candidates.

Twenty three-hour parades were held throughout the year. Instruction and equipment was supplied by permanent Force and Reserve personnel at H.M.C.S. Nonsuch. The only activity other than these regular parades in which the Unit participated was the November 11th parade. The Unit was inspected on February 2nd by Cdr. C. H. Little, R.C.N.(R), Staff Officer, U.N.T.D., from Naval Service Headquarters.

At the time of writing plans for summer training of two weeks' duration, and voluntary service of about four months' duration are underway. This training will be carried out at the West Coast where all members of the Unit will be

taken on a cruise of two weeks' duration sometime during the summer months. Officer candidates must spend one full summer training at the Coast. For these people Navigation courses of three weeks' duration, Seamanship courses of two weeks' duration, Engineering courses of four weeks' duration, Supply and Secretariat courses of six weeks' duration, Divisional courses of two weeks' duration, and Electrical Communications, Physical and Recreational Training courses are being arranged.

### **Report of the Radio Secretary, Miss Margery W. MacKenzie**

In October 1947 Radio Service moved to its new quarters in Hut H. The new accommodation includes two studios, control room, record library, practice room, and office. Since the University's broadcasting equipment has continued to be required by CKUA, broadcasting from the campus has been limited to about 35 programs, broadcast from the new studios, Convocation Hall or the Drill Hall by means of the portable remote-broadcasting equipment owned by the University.

As a convenience to speakers the recently-purchased recording machine has been used to a considerable extent. Some 110 programs have been transcribed by the Radio Secretary in the course of the year at times convenient to speakers, and broadcast later at the regular program time.

On November 21 CKUA celebrated its Twentieth Anniversary. In that connection a short anniversary program was broadcast from the new studios on the campus. The program was presented as the first part of the Music Hour; a University program which CKUA has carried throughout the whole period of its history, and it followed as closely as possible the form of the first broadcast from the University twenty years ago. Mr. H. P. Brown resumed for that program the role of announcer, the President of the University gave a brief outline of the history of CKUA, and Mrs. Robert Newton, guest pianist on the occasion of the station's opening, together with Mrs. James Walker, soloist, presented a musical program.

The University has continued to utilize approximately 3 hours, 5 days a week, of broadcasting time over CKUA. The times have been from one until two in the afternoon, and two hours in the early evening.

#### *Music Programs*

The Music Lovers' Corner, from 1 to 2 in the afternoon, and the Music Hour, from 7 to 8 in the evening, have continued to be devoted to the playing of good music. As part of the Music Hour 12 fifteen-minute organ recitals from Convocation Hall have been given by Professor J. Reymes-King.

In addition to the above-mentioned music programs, a fifteen-minute program each week has been devoted to music illustration of the Examination Syllabus of the Western Board of Music.

#### *Faculty Programs*

Ten programs convened by faculty members of the University have been presented throughout the University term. All were fifteen-minute programs, and with the exception of the Alberta Farm and Home Forum, broadcast three times a week, and the Chimney Corner, broadcast twice a week, they were weekly programs.

*Alberta Farm and Home Forum*—Convener: E. B. Swindlehurst (Prov. Dept. of Agric.) 150 programs (approximately).

This series, presented jointly by the Provincial Department of Agriculture and the University of Alberta is broadcast three times a week, throughout the entire year over CKUA in Edmonton and CJCJ in Calgary.

*Behind the Headlines*—Convener: C. S. Burchill. 24 programs.

Members of the University Faculty as well as outstanding speakers visiting the city contributed talks to this series of programs dealing with world affairs.

*Books at Random*—Convener: M. Sherlock. 22 programs.

In this series, members of the staffs of the several University libraries discussed numerous books of interest, all obtainable at the Extension Library of the University.

*The Chimney Corner*—Convener: F. M. Salter. 43 programs.

This has been a program of selected readings from the field of good literature. The reading of *Romeo and Juliet* on successive programs, and a monthly reading of selections from children's literature have been special features of this year's series.

*Curtain Going Up*—Convener: M. W. MacKenzie. 23 programs.

This program features many recordings of Shakesperian plays performed by famous actors. Towards the end of the year several plays were enacted by members of the Radio club of Strathcona High School.

*Faculty of Education*—Convener: J. W. Gilles. 19 programs.

These talks and panel discussions dealing with many aspects of the teacher training program and the educational conditions throughout the province, were given by members of the staff and by advanced students in the Faculty of Education.

*Why Stop Learning?*—Convener: A. S. R. Tweedie. 24 programs.

Members of the staff of the Department of Extension outlined in weekly broadcasts the opportunities and the assistance provided by the Department for the furtherance of various forms of adult education in the province.

*Wonder Box*—Convener: Z. J. Oliver. 16 programs.

Presented for this first time this year by students of the Faculty of Education, this was a program of dramatizations for children of stories from different lands.

*World of Science*—Convener: D. B. Scott. 18 programs.

Questions submitted by listeners furnished the basis for many of these discussions of scientific matters presented by staff members of the various science departments of the University.

*Your Home and You*—Convener: M. Patrick. 21 programs.

Dealing with many problems of the home-maker, this program of the Department of Household Economics provided women throughout Northern Alberta with valuable information.

### *Student Programs*

Greater interest in radio on the part of the students has resulted during the past year in the presentation by the Radio Society of the Students' Union of two regular weekly broadcasts as well as a number of special broadcasts.

Varsity Sports News and Campus Report were prepared and presented each week by members of the Radio Society. Special broadcasts included four programs in a Students' Artists series, one CBC broadcast in connection with the students' radio organization of Western Canadian universities, and the broadcast of a number of games from the Drill Hall.

Several plays were presented by various student groups in competition for the plaque awarded annually by CKUA. For the third successive year the award went to the Education Undergraduate Society.

### **Report of the Director of the Summer Session, Dr. H. E. Smith**

It appears to be generally agreed by instructors and students alike that this has been one of our most successful summer sessions to date. This success was no doubt due to the following factors: (1) The Summer Session Announcement was available for distribution on or about the first of February, a date considerably in advance of that achieved in previous years; (2) Syllabusses were all in order and the book supply was better than it had been for many years; (3) Our instructional staff was of a uniformly high calibre and a generous spirit of harmony prevailed throughout the whole term.

I think it may fairly be said that the students are beginning to realize that the summer courses are all at the university level, with the result that the work has been taken seriously and carried forward effectively.

The affairs of the students were conducted, I believe, very efficiently and I am sure the student body was very adequately served. The general student assembly agreed to pay a proportionate share of the salary of the permanent student secretary and accountant, and changes in the constitution were approved to this effect.

Similarly, the students endorsed the building plans of the winter session Student Council and approved a further change in the constitution to make possible a levy of a summer session fee to be credited to the Students' Union Fund.

The Daily News Sheet or Bulletin was produced this year in the office of the Students' Union, and the Council bore half the expense. It was agreed that the Summer Session should assume responsibility for half the cost of materials used, since the sheet is used for official notices as required.

### *Public Addresses*

Two public addresses were arranged during the summer period. On July 11, Dr. Aileen Dunham spoke on the topic "Reflections on the Aftermath of World War II," and on July 31 Dr. John Robert Moore spoke on "The Fun of Research." Both lectures were well attended, and apparently very much appreciated, by good-sized audiences.

A number of the classes desired to make some exhibition of their work towards the end of the session. The dramatics classes presented Euripides' "The Trojan



Women" on four successive evenings, July 7, 8, 9 and 10. Professor Eaton and his staff presented a musical concert on Friday evening, August 8, which was enjoyed by a large and enthusiastic audience. Miss Stadelbauer, Instructor in Art (Education 132) and Mr. Irwin in Arts and Crafts (Education 152) both had exhibitions of their students' work. One morning the kindergarten instructors invited the parents of the children in the demonstration class to visit the classrooms and see how the work was carried on. In the afternoon, a small party was arranged to which were invited a number of government officials and other local people who were interested in the development of the kindergarten. The Department of Household Economics, and especially the class in clothing design and construction, arranged a fashion parade in Pembina Hall on Friday evening at seven o'clock to exhibit the products of the term's work.

#### *Visiting Instructors*

This year we were fortunate in having a number of outstanding visiting instructors. Without exception, I think, they proved to be happy choices. Particularly I should like to mention Dr. Allen Dunham, who is on the campus for a second time and has delighted her class again with the range of her knowledge and vivacity of presentation. Dr. Stuart H. Tompkins offered a course in Russian History, Doctors Moore and McCourt offered courses in English, and Dr. Shortliffe a course in French. Miss Vivian White, for a second summer, offered a course in dress design and was evidently highly popular with her students.

In Education, Dr. Wheat from West Virginia, Dr. Bloom from Yuba College, California, Mr. Russell West, Asst. Supt. of Schools, Ann Arbor, Michigan, Miss Edna McCallum of the London School System, Dr. Gordon Turner of the University of Western Ontario, Dr. Evelyn Mudge of Western Maryland College, offered courses that from all reports were greatly enjoyed.

The Kindergarten classes were highly successful and were obviously very much appreciated by a class of approximately thirty students. Miss Baggs and Miss Dickson, of the Toronto City schools, were instantly popular and carried two willing classes through a session of heavy work. A demonstration class of about twenty-five kindergarten children provided opportunity for the immediate application of teaching principles and procedures.

A demonstration class of some twenty-five school children backward in reading was provided for Miss McCallum and Miss Newton for their courses in reading. I should like to pay a special word of tribute to Miss McCallum for the splendid piece of work she did in the interests both of her own class and of the school children requiring remedial instruction.

A note of thanks is going forward to the Minister of Education for his generosity in making available the services of several superintendents of schools and inspectors. Mr. Bryne and Mr. Oviatt are specialists in the field of Social Studies. We were especially fortunate in having the two high school inspectors, Mr. Sweet and Mr. Sullivan, for the methods courses in Social Studies and Literature.

#### *Industrial Arts Courses in Calgary*

A total of 49 students were in attendance at the school in Calgary.

We were able this year to utilize the facilities of the Institute of Technology and Art. Mr. James Fowler, principal, acted as local director.

In conclusion, I should like to assure the President of the deep appreciation I have of the opportunity to serve as Director through these four years. It has been a rich and fruitful experience, not alone in administration but more especially in association with splendid people through all ranges of University service. The work is heavy throughout a good part of the year but the returns are invaluable.

# **Report of the Director of the Department of Extension, Mr. Donald Cameron Statistical Survey**

## *Lectures*

University teaching staff .....	777	
Department of Extension staff .....	169	
	—	946
Aggregate attendance .....		66,001
Number of radio talks .....	259	

## *Conference and Short Courses*

Refresher Course in Sanitary Inspection .....	16
University Week for Farm Young People .....	222
Refresher Course in Municipal Administration .....	60
Refresher Course in School Administration .....	70
Community Life Conference at Gooseberry Lake .....	149
Banff School of Fine Arts .....	600
Refresher Course in Pharmacy (est.) .....	100
National Film Board and University Film Conference at Banff .....	35

### Extension Short Course and Library Institute:

Edmonton .....	15
Lethbridge .....	18
	— 33
The Educational Film Workshop at Lethbridge .....	25
Refresher Course in Medicine .....	268
Two evening Dental Clinics, approx. ....	100
Short Course for the Appraisal Institute of Canada .....	118

### Community Art Classes:

Black Diamond .....	24
Lethbridge .....	32
Medicine Hat, Winter course .....	31
Summer course .....	20
Vegreville .....	21
Wetaskiwin .....	11
Edmonton:	
Afternoon class .....	8
Evening class .....	14
Evening class .....	13
	— 174

<b>Community Drama classes:</b>		
Red Deer .....	25	
Stettler .....	20	
	<hr/>	45
Aggregate attendance .....		2,015
<i>Visual Instruction</i>		
Number of times lanterns loaned .....	38	
Filmslide and miniature projectors loaned .....	28	
Sets of lantern slides sent out .....	334	
Sets of miniature slides sent out .....	267	
Number of times slides used .....	918	
Aggregate attendance lantern lectures .....		38,041
Filmslides sent out .....	2,223	
Number of times filmslides used .....	2,990	
Aggregate attendance, filmslides .....		95,223
Sets of moving picture films sent out .....	3,514	
Number of reels in sets sent out .....	13,793	
Number of showings given .....	5,055	
Aggregate attendance, moving pictures .....	433,809	
Circulating Film Exchange .....	152,380	
	<hr/>	586,189
<i>Library and Debating Service</i>		
Number of travelling libraries in use .....	90	
Number of times sent out .....	198	
Recorded circulation .....		7,822
Number of special libraries sent out .....	96	
(circulation included in Open Shelf)		
Open Shelf Circulation:		
Books (including special libraries) .....	44,326	
Banff School circulation .....	3,600	
Plays .....	2,429	
Periodicals and pamphlets .....	3,692	
	<hr/>	54,047
<i>Study Group Material</i>		
Number of sets of Citizens Forum Bulletins sent out (weekly) .....	110	
Number of sets of other study group material sent out .....	35	
	<hr/>	145
<i>New Canadian Plays</i>		
Number of copies of New Canadian plays sold .....		500
<i>Publications</i>		
Press Bulletin (Seasonal Crops) .....	10,000	
(Feeders' Day Programme) .....	5,000	
	<hr/>	15,000
Bulletins sent out during the year .....	13,523	
Mimeographed circulars and other bulletins .....	1,000	
	<hr/>	14,523

Total number of bulletins distributed since inception of service .....	524,900
University News Letter:	
Number of issues .....	8
Circulation 8x350 .....	2,800
Stage Door:	
Number of issues .....	4
Circulation 4x500 .....	2,000
The New Trail .....	9,900

#### *Recapitulation*

Total aggregate attendance at lectures, conferences and short courses, lantern slide lectures, film slide programmes, moving pictures, Circulation Film Exchanges .....	787,469
Total circulation of travelling libraries, books, pamphlets, periodicals, plays, sets of study group material, New Canadian plays .....	62,514
Total circulation of Press Bulletins, Agricultural publications, News Letter, Stage Door, New Trail .....	44,223

### **Conclusion**

This report\* marks the end of the 35th year of University extension activity. It has been a year which has taxed the University's resources to the full, but it has also been a year of substantial achievement. The heavy increases recorded in almost every phase of extension activity is an indication of the recognition by the people of Alberta that the University is an important source of information, leadership and guidance. This is as it should be. In a time when ethical and moral values are being debased everywhere, and when language is being distorted and perverted in the interests of conflicting ideologies and beliefs, the place of adult education in the community becomes more important than ever. In such a time the University has a duty and a responsibility to use every opportunity for bringing truth and understanding to every field of the constituency it serves. If the University through its adult educational activities can contribute to the establishment of a proper sense of values in the community, its efforts will have been well repaid.

### **Report of the Director of the Provincial Laboratory of Public Health, Dr. R. M. Shaw**

On authority granted by the Board of Governors, our chief serological technician, Mrs. Jean Maddison, was despatched to take special instruction in the serology of syphilis under Dr. Reuben L. Kahn at the University of Michigan Hospital, Ann Arbor, Michigan. Two months were spent with Dr. Kahn and short periods of observation were also taken at the Provincial Laboratory of Ontario in Toronto and the Laboratory of Hygiene, Ottawa. This course of study has been very valuable to us in ensuring that our serological tests will better conform

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\*The complete Annual Report on Extension Activities of the University of Alberta for the year ending March 31st, 1948, which includes a report on the 1947 session of the Banff School of Fine Arts, is available in printed form.



to the rules of performance and reading as laid down by the authors of the tests in use.

During 1947 a Dominion Order-in-Council was passed appointing the Directors of Provincial Laboratories of Health of the nine provinces members of a committee for purposes of advising the Minister of Health on laboratory methods and related subjects.

A meeting of the committee was held in Ottawa December 11-13, 1947, under the chairmanship of the Acting Director of the Laboratory of Hygiene. The members were addressed by the Hon. Paul Martin, Minister of Health, and Dr. G. D. W. Cameron, Deputy Minister. Discussion concerned methods of examination and reporting results of tests to physicians, hospitals, etc. Considerable advance has been made also in co-ordinating the efforts of the Laboratory of Hygiene with those of the Provincial Laboratories. The Laboratory of Hygiene has given very valuable assistance to the Provincial Laboratories in supplying antigens and sera for tests and in acting as distributing centre for information and certain supplies.

The meeting herein mentioned is the third in which the Directors of Provincial Laboratories have met in Ottawa on the invitation of the Dominion Department of Health and Welfare but it is the first under the Order-in-Council.

During the year the Provincial Laboratory submitted to a Dominion-wide survey of technique and efficiency in serological tests for syphilis. Bloods were collected by the Laboratory of Hygiene in Ottawa and distributed to the nine Provincial Laboratories. Drs. Reuben L. Kahn and John Kolmer, the authors of the respective tests, acted as referees in these tests.

This was the third survey of this kind undertaken within the past four or five years. Its intention is to bring about uniformity of test and improvement in efficiency and accuracy. The results were very favourable and improvement in the rating over those of previous years is gratifying.

Table XVI gives a complete picture of the amount of work carried out during the year. Total number of specimens examined amounted to 160,772 as compared to 176,417 for the year 1946, a drop of 15,645 or 8.87%. The decrease took place mainly in the number of specimens examined for syphilis and gonorrhoea, viz., 24,853 and 2,830 respectively. Increases however occurred in those tests requiring more manipulation and other labour, viz., bacteriological cultures of public health and clinical importance, notably for diphtheria, typhoid fever, tuberculosis, etc., and histopathological examination and autopsies.

There was a marked increase in the demand for animal inoculation and culture for evidence of tuberculous infection.

Rh testing was carried on for a part of the year, but when the Red Cross Blood Transfusion Service became established in Edmonton the need for this service by the Provincial Laboratory ceased and such tests were discontinued.

The testing of sensitivity to antibiotics of bacteria isolated from persons under medical care has continued.

The construction work presently being carried on in the east wing of the Medical Building has hampered considerably the office and technical staffs in their daily tasks. In spite of difficulties and distractions, all members of the staff have cheerfully and efficiently carried on their respective tasks.

**Table XVI—Work Performed in the Provincial Laboratory  
During the Year 1947**

	Total 1946	Total 1947	Increase	Decrease
Sputum Examinations .....	768	680		88
Diphtheria and Haemolytic Streptococci .....	1,788	3,278	1,490	
Typhoid Fever (Agglutination test) .....	881	1,433	552	
Milk .....	912	1,146	234	
Water .....	3,188	4,038	850	
Guinea pig inoculations .....	911	1,377	466	
Miscellaneous .....	5,685	7,040	1,355	
Plasma cultures .....	150			150
Blood cultures .....		701	701	
Enterobacteria and Intestinal Parasites .....		915	915	
Urinalysis .....	34	19		15
Medico-legal (Blood, seminal, etc.) .....	9	8		1
Cerebro-spinal fluids for the Wasserman test .....	3,097	2,849		248
Bloods for the Quantitative Kahn test .....	1,556	2,741	1,185	
Bloods for the Wasserman test .....	9,221	9,256	35	
Bloods for the Standard Kahn test .....	8,697	8,810	113	
Bloods for the Presumptive Kahn test .....	99,009	74,156		24,853
Smears for Gonococcus .....	17,577	15,482		2,095
Cultures for Gonococcus .....	5,289	4,554		735
Van Den Bergh determinations .....	288	269		19
Bloods for Rh factor .....	622	3,078	2,456	
Pathological Histological material .....	9,321	10,761	1,440	
Blood Smear examinations .....	154	175	21	
Post Mortem examinations .....	280	310	30	
Ascheim Zondek tests .....	383	472	89	
Comparative Series .....	41	38		3
Cerebro-spinal fluid examinations (Colloidal gold, pandy) .....	3,284	3,024		260
Bacteriological examinations (P.M.) .....	89	111	22	
B. abortus examinations (Agglutination test) .....	881	1,433	552	
B. tularensis (Agglutination test) .....	881	1,433	552	
Cattle Blood (Bang's disease agglutination test) .....	1,421	1,185		236
<b>Total .....</b>	<b>176,417</b>	<b>160,722</b>		

**Report of the Director of the Provincial Industrial Laboratory,  
Mr. J. A. Kelso**

During the year the Laboratory carried out 5,871 examinations and analyses, an increase of 795 over the previous year. Table XVII gives some indication of the variety of work.



**Table XVII—Materials Most Frequently Examined or Analysed**

	No. of Analyses or Examinations
Antifreeze .....	50
Blood, human .....	45
Brains, for alcohol .....	31
Coal .....	89
Egg melange .....	205
Feed, animal .....	56
Feed, poultry .....	72
Industrial chemicals .....	36
Liquor .....	493
Liver, for poison .....	25
Milk .....	85
Narcotic drug exhibits .....	115
Oil, lubricating .....	28
Ore .....	178
Poison exhibits, misc. ....	43
Rock .....	83
Sterilizing solutions .....	39
Stomach, human .....	70
Stomach, animal .....	68
Urine .....	30
Water .....	1036
Wheat .....	102
Electricians' gloves .....	109
Concrete cylinders .....	1960

Engineering materials are handled in conjunction with the Department of Civil and Electrical Engineering, this arrangement working in a very satisfactory manner. We have close co-operation with all University departments, particularly, Engineering and the Oil and Gasoline Testing Laboratory and the coal division of the Research Council.

Usual investigations were carried out for various Government departments—Attorney General, Provincial Secretary, Lands and Mines, Agriculture, Health, Public Works, etc., and for the Director of Veterinary Services and the Alberta Liquor Control Board, the latter requiring inspecting and checking on all breweries in Alberta, such being in direct control of the Provincial Analyst.

The usual court evidence was given and examinations made in cases coming under the Canadian Criminal Code and various Provincial and Dominion acts and regulations, such as Alberta Liquor Control Act, Excise Act, Opium and Narcotic Drug Act, etc.

Co-operation has been given to the Department of National Health and Welfare, who are carrying on investigations with the Department of Health and the Workmen's Compensation Board.

All required analyses and investigations were made for R.C.M.P. and other police officers and for Provincial Coroners, and the necessary reports prepared and evidence given by Provincial Analyst at inquests, etc.

